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# ILLINOIS TEACHER OF HOME ECONOMICS

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## NEW FACES AND PLACES FOR HOME ECONOMICS

### UNIFIED ARTS PROGRAMS INCLUDING HOME ECONOMICS

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# TEACHER



# TO TEACHER

Welcome to the beginning of a new school year! We here at *Illinois Teacher* are very excited about this year's volume which has the theme, "**New Faces And Places For Home Economics.**" In hopes of stimulating further thought and action which began last fall at the Lake Placid Conference, we plan to explore throughout the year such topics as: unified arts programs including home economics (this issue); home economics education outside the classroom setting, e.g., mental hospitals, prisons, government agencies, private industry, etc.; home economics programs for minorities; new career and work opportunities for students and graduates in our profession; and a new look at today's family relations. A very broad umbrella, yes, but one we feel will expose many new faces and places for our profession.

What does "**New Faces and Places For Home Economics**" mean to you? This was the question we posed to some of our leading home economists throughout the nation. The response was tremendous and we are pleased to share their comments and/or reactions with you. Expounding further on the subject of the future of home economics are two home economists you may know: Dr. Mary Ruth Swope of Eastern Illinois University and Dr. Alice E. Whatley of the University of Texas at Austin.

The bulk of this issue deals with unified arts programs including home economics. Pittsburgh Public Schools offer an Occupational, Vocational, and Technical Exploratory Program (OVT) for sixth, seventh, and eighth grade students. Their article explains how three departments, home economics, industrial arts, and business education have been combined to provide career-oriented experiences related to the "world of work." Another junior high program, at Urbana, Illinois, combines home economics, art, and industrial arts, but is taught through a team teaching approach.

At the high school level, there are several articles dealing with unified arts programs too. Suzanne Reed explains how three classes, Entertainment with Foods, Actor's Studio, and Stagecraft, combined forces for a Dinner Theatre. For the price of one admission, patrons could enjoy dinner and a play in one stop. Helen Westlake and Marion McKinney explain how they plan to combine classes in child development and English literature.

Independent Living is the title for a practical course combining home economics, social studies, and business education. Mrs. Glenna Atwood of the Hampden Academy in Hampden, Maine, explains the course and illustrates how the three areas combined for a successful lesson on "Buying a New or Used Car." In Albuquerque, New Mexico, the Rio Grande High School was selected to implement the course, Dynamics in Design, which combines home economics and industrial arts. The course deals with four sections of instruction: Design and Architecture, Consumer Education in Relation to Housing Needs, Decorating, and Landscaping and Maintenance.

In order to help you make your teaching and learning more exciting, more effective, and more fun, we have, again as in the past, included order blanks for Innovative Teaching Techniques (ITT) and for the new Consumer Education materials which are available from the *Illinois Teacher* office. See pages 49-54.

As we begin a new school year, I would like to encourage all of you to remember *Illinois Teacher*. Please write and tell us what you've been doing, new ideas you've tried, new experiences you've encountered, etc. It's only through sharing of ideas and experiences that our profession can continue to grow. And we here at *Illinois Teacher* would like to continue to be a part of a "growing profession."

*Sue Summerville*

Assistant Editor





*Clockwise, from upper right corner:*  
**Opal H. Mann**, USDA, Extension  
 Service; **Satenig S. St. Marie**, J. C.  
 Penney Company, Inc.; **Mercedes A.**  
**Bates**, General Mills, Inc.; **Doris E.**  
**Hanson**, AHEA; **Naomi G. Albanese**,  
 The University of North Carolina at  
 Greensboro; **Gwen J. Byrners**,  
 Cornell University; **James E.**  
**Montgomery**, Virginia Polytechnic  
 Institute and State University.



# "NEW FACES AND PLACES FOR HOME ECONOMICS"

## —Leading Home Economists React

During the planning stages of this issue, we sent letters to several leading home economists throughout the nation asking for their reaction to our theme, *New Faces And Places For Home Economics*. The response was tremendous and we are pleased to share their comments and/or reactions with you.

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There is a role for new faces in home economics, para-professionals. So many of the activities carried on in the day-to-day routine of many home economists could be done by someone with less education than we have. And, if we have enough self confidence to accept this, the time released in our daily work could free us to do more planning and administration, to help us function as true professionals. If skills have a place in a family-focused profession such as ours, then we need to ask ourselves if these skills can't be taught by para-professionals. Does it really require a college degree to become knowledgeable in skills? In business as well as education, para-professionals could take over the skills, thus making the home economist the specialist in helping families relate to progress, instead of the expert in cooking and sewing.

To do this, we need to define the role of the professional as well as the role of the para-professional. This should become a priority for our profession.

*Satenig S. St. Marie*  
Director of Consumer Affairs  
J. C. Penney Company, Inc.  
New York, New York

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The theme "New Faces and Places for Home Economics" reinforces my long-held belief that home economics could become the basic core of any program in higher education developed to meet the physical, mental, and social human needs. This is so because the professional focus of home economics has always been on the home and the family, and home economists should be committed to promote the achievement of dignity of each individual. This commitment to each member of the community can be fulfilled by first making our educational setting a center of academic excellence, and one which forcefully encourages civic responsibility.

Second, our teaching should help shape the standards of judgment which mark our culture. Without the informed, resourceful, creative, discriminating individuals, we would never learn to use our human and material resources wisely, and we would never help our most talented people illuminate us all.

Third, home economics as part of the university world can help resolve the problem which seems to me the most difficult one of our time—and the recurrent problem of any democratic society—that is, the problem of individual liberty and social order. All of us, within the limits of time, circumstances, the rights of others, and societal responsibility, must keep alive the vision of individual human excellence, for here is to be found the transcendent effect of creative, discerning, independent citizens, even in the so-called mass society.

As a home economist in higher education, I renew my commitment to march hand-in-hand with other educational disciplines in helping the individual student to develop to his potential and full powers, and to encourage him to find ways to use his abilities and energies in the service of mankind.

*Naomi G. Albanese*, Dean  
School of Home Economics  
The University of North Carolina  
at Greensboro

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Probably one of the arenas in which we will find new places for home economists will be that of "volunteerism." More will be serving as volunteers as well as paid para-professional and professional workers directing the activities of others in areas of social welfare; community planning; services for the unemployed, the aged, children in need. More will be found in agencies assisting families with problems of housing, juvenile delinquency, and use of leisure. More will be working with play camp programs, city parks play camps, indoor recreation for the underprivileged, outdoor recreation for individuals and families. More will be working in programs concerned with arts, crafts, special musical events, and family counseling in neighborhood centers, health and hospital units, and banking institutions.



Still another arena for the home economist serving either as a volunteer or as a paid professional and/or para-professional will be "**consumerism**." Implementation of local, state, and federal legislation will find hundreds working in governmental employment at the local, state, and federal level on consumer credit protection; safety and sanitation in production, processing, and distribution of goods and services; on problems associated with air and water pollution; discriminatory hiring practices; and unfair pricing policies.

A third arena will be that of **energy**. Energy industries and related services will present new opportunities with public utilities, equipment, and appliance businesses as well as research positions dealing with energy resources and utilizations. We'll find more home economists working in transportation, telecommunications, and tourism. They'll be working on energy-related problems in food processing and distribution of fuel needs of families; overcoming difficulties caused by natural or man-made disasters (inflation, depression, unemployment, floods, etc.); commercial health; and recreational areas.

In terms of course offerings we shall still need people getting their preparation and experience in the applied disciplines related to food, clothing, housing, consumer science, and human relationships, including child and family development. At the post-secondary and graduate levels there will be a need to seek additional education and experience in offerings concerned with the economy, the environment, and the behavioral sciences.

*Pauline G. Garrett*  
Director, Operations Division  
Federal Energy Administration  
Region VIII  
Denver, Colorado

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At first glance the idea suggests new fields to conquer for home economists. The expanded concept of family together with increasing recognition given to social and economic influences on family living gives rise to these so-called new opportunities. I should like

to remind readers that home economists were among the first professionals to recognize the impact of the social and economic environment on the home and family. The record dates from our Lake Placid origins.

Today, colleagues from many disciplines are rallying to study societal-based family problems. This is as it should be. Sociologists, psychologists, economists, and engineers should be concerned with problems that impinge on people. Their interest can prove a great boon to home economists. It can also spell trouble for us. Trouble only if, in competition with our colleagues in other disciplines, we try to take on problems outside our expertise. Home economists, as others, need to remember they cannot be all things to all people.

Our intellectual support system does need strengthening, but home economists would be well advised to try to help formulate the questions and work with the other disciplines rather than attempt to develop all the expertise needed to cope with the multitude of family-related issues arising out of the malaise of our society. Our special advantage lies in our ability to take an overview—whether we are nutritionists, consumer economists, housing, clothing, or human relations specialists—on what is happening to people, and particularly to people living in family groups. We need to improve our ability to communicate with professionals in related fields and help them recognize the full dimensions of home and family problems.

Other professions share our concern for people but only home economists have the unique history of being concerned with welfare of **all** families, not just poor, sick, broken, threatened, or otherwise problem groups. It has been fashionable in recent years to fault home economics for failing to recognize the poor and other disadvantaged groups. The criticism is not well placed. Individual home economists have been associated with programs serving these groups long before it was fashionable. The fact that many home economists have been teaching and working with middle income, relatively happy stable American homes is more related to the afflu-

ence of our society than it is to an unwillingness to face harsh realities. Nutrition is an example where, although there is a real need to help the poor and the aged solve nutritional problems, the harsh reality is that affluence is not necessarily accompanied by nutritional adequacy. Credit or money management is another case in point. Most abusers of the credit privilege are not poor. Middle and upper income families also need the home economist.

Many home economists will continue to work on the social and economic problems of the disadvantaged, but unless we keep our eye on the fact that the larger audience for our professional efforts is and will continue to be the middle and upper income classes, we may do the entire profession and families a serious injustice.

Gwen J. Bymers, Chairman  
Department of Consumer  
Economics And Public Policy  
New York State College  
of Human Ecology  
Cornell University  
Ithaca, New York

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New faces could suggest one or more of the following:

- Home economists who recently joined the home economics ranks.
- Newly prominent home economists—possibly biographical sketches in *Illinois Teacher*.
- A new face (new and improved image) for home economics, conveying the concept of home economists as important educators contributing in a major way to many areas of home, family, and community living. This concept could be used to influence not only the general public but the decision-makers—the power structure—those responsible for budgets and staffing decisions.
- A new or different perspective of the formerly reorganized missions of home economics, including recognition of the less familiar professions and activities of home economics.
- New and/or redefined missions and objectives of home economics, including identification of new professional and career opportunities for home economists.

- New faces may imply that the *Illinois Teacher* will broaden its base to new and different aspects of home economics which this publication had not covered previously.

New places may imply:

- Extending home economics to gain outreach not previously recognized as prominent areas of the home economics program.
- Home economics as a part of such college curricula as medicine (nutrition and diets), economics, business, and career education where home and family related educational needs exist but are not presently being taught by home economists.
- Places where skills continue to be emphasized but where greater emphasis is being brought to bear in value clarification, decision making, and knowledge.
- Public affairs and crisis situations such as the energy crisis, which affect families and where home economics education is needed.
- Home economics education to be found in a greater number of educational situations involving men and boys as well as women and girls. This would mean places of learning for both adults and youth, including elementary grades, especially in relation to family economics; decision-making; family relationships (marriage, child development, interpersonal relationships); economics; nutrition; health; housing; etc.

Opal H. Mann  
Assistant Administrator  
Home Economics  
U.S. Department of Agriculture  
Extension Service  
Washington, D.C.

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Much is being written in favor of more women in the professions of law, medicine, and dentistry while at the same time an increasing level of interest is being shown among girls at both high school and college level in the field of home economics. A melding of these two seemingly conflicting postures can take place if a few universities plan options whereby women can specifically obtain pre-law, pre-medicine, or pre-dental curricula through home economics. Teachers who are counseling college bound girls could encourage this.



The School of Home Economics would need to work out the new plans in cooperation with the other professional schools. Several factors make this suggestion an appealing one:

- a. The proper core of home economics subjects plus supportive subjects provide a new and imaginative base for law, medicine, and dentistry. We know that for dealing with family law, consumer protection, child neglect, and indeed any of the human side of law, a greater knowledge of home economics subjects is at least equal to the traditional pre-law subjects. For pre-medicine and pre-dentistry, the basic sciences, nutrition, child development, family economics, and management can be woven into a logically sound curriculum.
- b. More women with an understanding of home economics who are later educated as doctors, lawyers, and dentists will help to elevate the status of home economics as well as to bring a new set of perspectives and values to these traditional professions.
- c. Home economics will be contributing to women's liberation by preparing some young women to enter the traditional high status, high salaried men's areas, while at the same time avoiding the other possible extreme of an over-supply of home economists.
- d. If properly planned, the option would not only leave the student in a position to be admitted to the other professional school involved but would leave her with a first-stage profession through home economics if she decided not to go on.

*Doris E. Hanson*  
Executive Director  
American Home Economics  
Association  
Washington, D.C.

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If the field of home economics is to measure up to need and expectation, increasingly it must be synchronized with our world of dynamic change. More and more the family must be served indirectly. That is, home economics must be effective on the many fronts of modern society which now so fundamentally

impinge upon the family—business, industry, government, markets, schools, mass media, and private agencies. Food, clothing, shelter, and an array of other goods and services are no longer primarily produced in and by the family. To me, this dependence on institutions and forces outside the family strongly suggests that as never before home economics must prepare persons to enter countless positions which either directly or indirectly affect the quality of family life. We must build bridges and interfaces with non-home economics disciplines, organizations, and services. Then we shall be immeasurably more relevant to the needs of the 20th and 21st Century "family of man."

*James E. Montgomery*  
Department of Management,  
Housing, and Family  
Development  
College of Home Economics  
Virginia Polytechnic Institute  
and State University  
Blacksburg, Virginia

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As we move deeper into the Seventies, it is essential that home economics recognize the changes that are taking place in the American family. There will be more families, smaller families, richer families, and busier families. There will be more working wives, and more families living in townhouses and apartments as opposed to the single family house. There will be more single households as women choose professional careers and delay or discard marriage. There will be more families in the "empty nest" category. Our population will continue to be mobile, and metropolitan areas will account for an increasing percentage of our population.

It is important, then, that the home economics emphasis on the family be viewed within the framework of the family of the 70's—not of the 50's or 60's. As our mores change, so must our teaching. This means an interdisciplinary approach which combines the practicality of home economics with other areas of expertise such as business, the social sciences, communications, and perhaps law. In those areas of our field which are uniquely home economics we



must be sure that our courses of study are geared to today's family. We cannot prepare young women and young men in precepts which were compatible with the family of the 50's. We must move with the times.

**Mercedes A. Bates,**  
Vice President,  
Consumer Center &  
Betty Crocker Kitchens  
General Mills, Inc.  
Minneapolis, Minnesota

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Wise academic decisions in today's world can be made only in the context of a realistic and reasonable estimate of the future. Unfortunately, this fact is often overlooked. Immediate events are more pressing and the future seems far away. Planning for the future should be one of the most important aspects of our work in our various educational enterprises. Without some concept of the future and our part in it, we are helpless in the hurry and confusion of the present. If we are to grow . . . to build . . . we cannot afford to lose sight either of our potential or of the world in which we shall live.

Those who have read Alvin Toffler's book, *Future Shock*, may remember his lines:

We are creating a new society. Not a changed society. Not an extended, larger-than-life version of our present society. But a new society. This simple premise has not begun to tincture our consciousness. Yet, unless we understand this, we shall destroy ourselves in trying to cope with tomorrow.

Toffler, as you remember, also wrote of . . . "the roaring current of change . . ."

I am concerned about the swiftness with which change comes today and about our slowness or lack of ability to respond. It may be quite possible that in home economics/human ecology we are more likely to view ourselves as generators of change than as responders to change. Yet the social change process is a circular one: social circumstances produce changes in the social order, and changes in the social order produce social circumstances. We are both instigators and responders.

A few years ago, George Miller of Harvard made a statement which I appreciate greatly,

largely because of its meaningfulness in our field:

If the direction of social change that we have learned to call progress is to continue, our best minds will have to find some effective way to pool their abilities, for many of our most pressing problems are already too large to fit inside any single head.

I believe we have found an effective way to pool abilities. In home economics/human ecology, we have found a way to create a new kind of discipline . . . an interdisciplinary in the fullest definition of that word. We have the concept; we believe it can be implemented; we know it is the only solution to some of the questions facing families and mankind. We also know it is up to us to make it work.

To make it work, however, requires looking ahead . . . scanning the horizon while at the same time taking the next step. For most home economists/human ecologists, this last year has been a special year of reflection on the past, review of the present, and anticipation of the future. Every year, I would argue, must be a special year for this process. We are in a period of unprecedented change and crisis for education. If we are to cope with tomorrow we must learn to anticipate tomorrow and prepare for it.

We must develop, not only for our profession but for those we serve, strategies for survival, means of coping intelligently with crisis and change. We must discard that which is no longer appropriate or timely, or that which is unworthy of our abilities and our programs. We must as well hold to that which is of value. We must simultaneously attend to that which is urgent, and do our best to foresee and respond to that which is imminent.

This is the task always ahead of us . . . to anticipate the future . . . to plan today for tomorrow.

**Lois A. Lund,** Dean  
College of Human Ecology  
Michigan State University  
East Lansing, Michigan



**Lois A. Lund,** Michigan State University.

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(Continued on page 45)

# THE FUTURE:

## *What's In It For Secondary School*

Mary Ruth Swope, Dean  
School of Home Economics  
Eastern Illinois University  
Charleston, Illinois



### PREDICTING THE FUTURE

DIRECTION of a profession, like weather forecasting, is a difficult task at best. Apparently, neither education for the task nor years of experience in reading the obvious indicators seem to be reliable predictors of success. Believing, however, that being free to fail as often as the weather reporters without apparent rejection or retaliation by either peers or the public has given me encouragement to try. What then, do I think will be the new faces and new places in secondary school home economics within the next few years?

Home economics will have a bright future. There are encouraging signs that add confidence to this position. Larger numbers of young women of high academic ability are graduating from better quality baccalaureate programs. This is a fact. Larger percentages are becoming pre-professionally involved and committed to work in our professional associations. And, since these same associations are presently providing more opportunities for inservice and continuing education, the competence level of future home economics teachers will rise. With increased competence will come a better public image—to be

followed, naturally, by increased prestige and a stronger professional commitment. This is the cycle of success.

Given this situation, what direction will the profession be likely to take in the future? What concerns seem preeminent to the majority? What do we really value? What do we believe is urgently important? These are all questions awaiting an answer. For truly the behavioral scientists are right, in my estimation, when they say that we behave in terms of our beliefs. The methods we use must be appropriate. The knowledge we have must be soundly based and relevant. But first and foremost we must decide what we believe. As a point for discussion in future issues of the *Illinois Teacher*, I shall share my beliefs—with the hope that if it rains when snow was forecast, all readers will settle happily for the former and will continue to listen to future broadcasts.

**I believe that home economics teachers will seize their opportunity to teach value clarification and human potential concepts** to help their students grow toward personal and civic maturity. This means education for self-actualization. It means helping students develop self-respect, self-discipline, self-reliance and even such virtues as honesty, integrity, charity, and faith.

As an integral part of this education for value clarification, home economics teachers should be alert to every opportunity to use human potential concepts and techniques with their students. The self-image, we are told, is the cornerstone of both human personality and behavior; it sets the boundaries of individual accomplishment and growth. It would seem that there could be no greater challenge for the home economics teacher than achieving this goal.

**I believe that home economics teachers will increase their knowledge about and concern for environmental problems**, especially those related to the problems of the energy crisis, water and air pollution, space utilization, and population control. Resources of many kinds once taken for granted during this century are no longer considered inexhaustible. Shortages of fuel, water, fertilizer, metals, nylon,



## Home Economics

plastics, and fabrics, to mention a few, are daily becoming more acute.

Conservation ideas, the disposal of waste, and possibilities for recycling are suggestions for topics that can easily be taught by home economics teachers to boys and girls, as well as men and women, in a variety of educational settings. Our profession can and must make an important national contribution to the resolving of these important problems.

**I believe that home economics teachers will increase their competencies in the areas of child development and care, and in the area of family life education.** This belief is based on the assumption that nothing is more important to a healthy society than a healthy family system and that nothing is more important to a family than a healthy child.

Present families are under extreme pressures and tensions well-known to home economists as well as to a wide group of professional workers. If we expect to deal successfully with these problems and tensions, we must begin paying more attention to the needs of families. There is much that home economists can do to increase adolescents' awareness of the physical, social, and emotional needs of children and of the role of parents in fostering the optimum development of the child. There is much we can do through home economics classes to teach young people about the most important role they will ever assume; namely, parenthood. Hopefully, we can expect major new commitments from our professionals in these important areas of urgent concern to our society.

**I believe that more school systems and more home economics teachers will encourage boys to take home economics courses** planned to meet their special needs. Alternate life styles and changing roles of men and women in our society make it more important than ever that boys and men gain competency in many areas of daily living once thought to be strictly the female role and therefore off-limits to them.

While this in itself is not a new idea, what **would** be new is to have ten million male students in junior and senior high school programs in contrast to the present seven

hundred thousand. It would also be fairly new to have large numbers of male students enrolled in clothing construction, consumer textiles, consumer education, child development, sex education, parenthood education, home management and interior design—taught by a home economics teacher. When you think about it, which of the above subjects is inappropriate for males? Which is partially or totally irrelevant to the real life needs of boys and men? I believe that **now** is the time to educate men for the responsibilities they will face in living successful lives, as individuals and as family members.

**I believe that home economics teachers will explore new ways to accommodate the teaching of career education**—to help young people understand more about the world of work, develop attitudes compatible with employability and provide opportunities for the development of job competencies through work experiences in careers related to home economics subject matter.

The changing patterns of women's participation in the labor force would indicate that work outside the home is now an integral part of life for both sexes. Preparation for employment is as necessary to the education of the student as is the need of education for a decent daily existence. Career education should not be narrowly defined; within it should be the concepts of the need for continuous education and the opportunities for advancement afforded by career ladders and lattices. Students also need help in assessing their potential; they must come to recognize that certain jobs require certain personal and educational qualities and an accurate assessment of their own potential is required if job satisfaction is to be achieved.

**I believe that home economists will multiply their present efforts to provide appropriate and meaningful experiences in the area of consumer education.** The big goal and the greatest energies should not be spent to teach the "how to buy" information, although this is often relevant to the immediate goals and needs of students; "whether to buy" may be the real issue. The big goal then, should be to help students discover what they value in

life, their first priority concerns, and what decisions must be made in order to achieve the lifestyle they believe will be satisfying and rewarding.

Young people need to be taught that decisions, everyone's decisions, are accumulative. Oftentimes, with this accumulation comes irreversibility. Nowhere in the curriculum is there a more perfect setting for illustrating this concept than in the realm of economic principles in a consumer education and/or consumer problems setting.

Too, youth today are looking for economic structures that lessen the exploiting of man and nature. They are making countless decisions related to work, education, recreation, and free time for themselves that differ from young people of a generation ago. These values must be reckoned with in the classroom by home economics teachers.

**I believe that foods and clothing will continue to be taught at the junior high and senior high school levels.** If our goal is to improve the competency of students for daily living, then it makes good sense to continue to offer work in the areas of foods, nutrition, clothing and textiles. The ideal amount of time to spend on food preparation and clothing construction is the philosophical point of confusion and difference. It is probably fair to say that in many secondary schools today, a disproportionate amount of time is devoted to developing competencies in these two areas. The reasons for this are legion; the remedies for it are also legion. Any changes must take place first, however, in the belief system of the individual teacher. Without that, there will be no change in the course offerings and/or content.

**I believe that, wherever possible, home economics teachers will sponsor FHA and/or HERO organizations as an integral part of their program.** The goals of these organizations are very worthy ones which all youth could profit from, if taken seriously. Both organizations provide opportunities for leadership experiences at the local, state, and even national levels. The service-oriented opportunities are enriching; the social development aspects of membership are very important. Members have access to high

quality materials written by state and national leaders that are mind-expanding. Active membership in either or both of these organizations provides opportunities for the development of many personality and character building qualities so essential in the total development of the individual for responsible participation in a democratic setting.

**I believe that home economics teachers will increase their skills in communicating our profession to others.** Every teacher must assume responsibility for aggressively demonstrating effective programs to the various publics—parents, guidance counselors, faculty, administrators, members of Boards of Education. Exchanging ideas and services with community leaders of civic groups, businesses, or public and private agencies is an excellent way of making others aware of our competencies as home economists.

The use of advisory committees for an exchange of ideas in curriculum planning has worked well for some teachers. Others have found that using local newspapers, radio, and TV are good ways to communicate our profession. There is no dearth of ways to communicate home economics history, philosophy, curriculum, competencies, potential, and whatever; the dearth seems to lie in being able to find home economists who are actively involved in **being creative** and aggressive in communication. This is the challenge for the future.

**I believe that home economics teachers will recognize their need for continuing education and re-education** for the development of needed competencies. Many of the problems in the profession of home economics are related to the fact that four years of college education has been too often considered by the teachers as adequate preparation for teaching. Nothing is farther from the truth. Competence in teaching traditional home economics subjects must now be combined with occupational or career home economics. To subject-matter competence must be added competence in meeting the needs of students with wide differences in intelligence, socioeconomic background, high IQ, low IQ, low-levels of aspiration and in behavior. To all of this must be added also an



understanding of stages of development, e.g., pre-adolescent, adolescent, young adult, and middle age. This list of competencies is only a beginning; many more are required. From this it would seem clear that home economics teachers need a great deal of in-service and graduate education if, indeed, they are to be a strong force in a high quality educational program to meet the needs of today's youth.

**I believe that home economics teachers will get more formally organized for political participation and action.** If the Eleventh Lake Placid Conference stressed any single idea about the future direction of home economics more often than another, it was our need as a professional group to develop political expertise and influence. This cannot be done by volunteer help alone. It cannot be done by those of us who are not thoroughly knowledgeable about and experienced in the entire governmental process and who are not aware of how it is functioning presently in the political arena. **We need a full-time government relations specialist or lobbyist** to work for adequate funding of our present programs and to take an aggressive stance in writing new home economics-related legislation at the state and national levels.

We must slow down our use of emergency legislative telephone trees to put out the brush fires. We must speed up an aggressive legislative stance in which we educate legislators and work with them to initiate new ways of using home economics subject matter taught by home economics teachers as "preventive social welfare." This action, in my opinion, would be our most effective weapon for combating the present tendency of related professional groups usurping our traditional areas of expertise.

**In summary, then,** the future of home economics in secondary schools has the option of being even more exciting and useful in the future than it has been in the past. In every aspect of our subject-matter there is opportunity for exploration and experimentation with almost limitless methods, materials, and ideas. The big challenge is to find ways to help home economics teachers and potential teachers to have a keen awareness of their students' values, goals, needs, and interests, and for them to be charged with the imagination, initiative, and adventure required to build a meaningful total program.

Can it be a reality by 1984? Let's try!

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## COMING NEXT ISSUE

Dr. Twyla Shear of The Pennsylvania State University will be our guest editor for the November/December issue. She and her colleagues will be exploring such topics as:

- Confluent education in the classroom, or creativity in the classroom.
- Some values home economics teachers should hold to.
- Home economics and projections for the future.
- Curriculum in home economics.
- Sexism in home economics.
- The "trigger" technique in family life education.
- A middle school program.
- A testing day.
- Women's game.
- A formative test for consumer education.
- Student assessment of teacher's direct and indirect behavior.
- Ways of integrating family planning concepts into the regular home economics curriculum.



# INDIGNATION,

## AN IMPETUS FOR CHANGE:

Alice Elrod Whatley

Assistant Professor and Head  
Division of Teacher Education  
in Home Economics  
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**Expression of indignation is not negative, rather it is an indication of interest and concern. Expressed indignation related to aspects of professions in home economics can clear the field, psychologically, creating a professional environment amenable to change.**

**Reasons for indignation in the home economics profession include the need for home-making programs to be: realistic in light of today's living; sensitive to all members of the family and all types of families; tolerant of individual differences; reflective of diversity in training; cognizant of the importance of social science in home economics as well as of skills; and modernized to enhance the image of the professional home economist.**

SOCIETAL CHANGES manifest the need for a new approach to the discipline of home economics if the relevance of the profession is to be maintained. The urgency of change has been described as follows:

Our times call us to the most incredible confusion and terrifying excitement that man has ever known. We are flying blind. We are trying to create values and norms and procedures for coping with that which we have not yet known. Our few verities . . . birth, love, suffering, joy, and death . . . span the total concerns of the University and it is our task . . . to achieve a depth of understanding and emotional discernment of these verities in our own lives and the lives of others . . . (1)

A sense of urgency is shared by many today. Huxley's *Brave New World* (2) was considered shocking and far-fetched by some readers. Yet, sooner than depicted, much of Huxley's book has come to be. How swiftly science has developed, how fast the population has increased, how organized people have become in larger and larger groups! Further, the power for controlling or devastating the outside world has proceeded beyond the descriptive *Brave New World*.

Today, plans have been made for the cities of tomorrow: multitiered, platforms, rings, and other forms, with various types of traffic meshed in a transfer center. Already scientists are learning to control the brain with new devices and techniques by manipulating emotions, thoughts, behaviors. Other scientific experimentation includes control of

heredity and evolution, resuscitation of patients past death, and creation of life in the laboratory test tube. (3,4,5,6,7)

As the dimensions of knowledge expand, few human concepts or values remain inviolable. It would appear that even life and death will have to be redefined. Little can be taken for granted. Transformed meanings are being extended to the individual, male and female, the family, youth and age, health and disease, good and evil. Preservation is sought for the values of each individual in a communal society which links all the globe in interaction. At this time, it becomes increasingly difficult to subordinate the bewildering amounts of uncoordinated experiences and responsibilities to an ordering principle of thought and practice in daily living. (3,4,5,6,7)

### SOCIETAL CHANGES HAVE AFFECTED HOME ECONOMICS

Additionally, it has been noted that social change is often accompanied by serious disruptions for the groups with which individuals in a traditional society identify. (8) The area of home economics has not escaped, as indicated in the following commentary:

Home Economics today is in a turmoil. There seems to be among us in the field a frantic search for identity and status, a general confusion about what we are doing and what we ought to be doing, an embarrassing sense of guilt about our "image," and, among the dedicated professionals, a deep questioning of the meaning of home economics and its reason for being in today's world. Some of the confusion and unrest may be a "normal" reaction to the technological explosion with its corresponding pressures to encompass and to understand. But, much of it must be the result of the realization that we can no longer continue to exist without a definite understanding of ourselves as an educational entity and of our particular relevance to the rest of society. (9)

Far from decrying and opposing an onrushing technology, we can see technology as an ally which can as easily enhance as diminish the human spirit. During such awesome scientific discovery and advance, man is capable of producing a way of life far more abundant and humanly creative than formerly imagined.

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# Implications For The Professional Home Economist

In such a period, traditional teaching and learning practices, timeworn curricula, and much of the inherited structure as well as function of education, become outmoded.(10) But, a time of trouble is also a time of opportunity: to project fresh, bold objectives that can arouse one's profession into adventurous, concerted, far-sighted programs. It is understandable that the current purpose and process of education should be reconstructed. The qualifications of a professional must include competence, continued study, skill in interpreting knowledge, concern for standards of the profession, public responsibility, and open-mindedness about new facts and ideas related to life and people.(11)

According to Leonard's *Education and Ecstasy* (12), it would appear that the task of preventing the new generation from changing in any deep or significant way is precisely what most societies require of their educators. As home economics teachers know from working with some parents, it is as though collective taboos exist against certain types of development.(12) However, at this time, the social tensions associated with a transitional society have stimulated the urgency of change. Related to home economics, measures can be introduced to steer professional thinking to meet the needs of individuals and families today.

## INDIGNATION TOWARDS HOME ECONOMICS MAY CAUSE CHANGE

George Sand has called indignation at what is wrong in humanity one of the most passionate forms of love.(13) Because of deep caring about home economics, perhaps indignation related to some aspects of the home economics profession should be expressed. To express such indignation can clear the home economics field, psychologically, and create a professional environment amenable to change. Additionally, the process of expressing indignation is based on the belief that realism can be a basis of optimism.

Reasons for indignation have been verbalized by varying groups: experienced teachers, inexperienced teachers, student teachers, and

students. Some of the most prominent observations presented have had corresponding suggestions for change.

### Focus Programs On Life As It Really Is

At a regional Vocational Education meeting in Oklahoma, it was stated that evidence has been brought to light indicating that many home economics programs are not focused on life as it is really lived today.(14) Harold Taylor remarked in "The Education of Our Daughters" that

... insofar as the work in home economics teaches women to accept the society as it is, and teaches them to fit into the industrial order as a consumer and buyer of marketable products, it is doing grave harm to the country and to women ... you are teaching your students to accept what exists rather than to create a better existence.(15)

It has also been expressed that home economics sometimes complicates life.

Only as new teachers are prepared and as experienced teachers, supervisors, and teacher educators become more keenly aware of the dynamic social and economic scene, can needed educational changes be implemented.

The final test of teaching home economics is freedom. If we have unnecessarily complicated a single life by perpetuating useless conventions or by carrying the values of one age over into the next, just so far have we failed. If we have simplified one life and released in it energy for its own expression, just so far have we succeeded.(16)

### To Be Family-oriented, We Must Include Men

In keeping with this, the observation has been made that home economics is family-oriented, yet the home economics enrollment is approximately 95 per cent girls. Dr. Luther G. Baker, Jr., Chairman of the Department of Home Economics at Central Washington State College commented:

I submit that so long as home economics remains predominantly an arena for female action and opinion it has no right to presume to speak for the family and cannot develop and implement those programs needed to strengthen and improve family life. ... men must be brought into the effort both as teachers and learners.(17)

In response to this expression of indignation, it has been suggested that home economics courses of study should encompass all

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members of the family. Small children as well as adults should be included. Further, men and boys in homemaking classes should become the rule rather than the exception since subject matter is not segregated as male and female. Subject matter should incorporate those topics of general concern to families: wage earning associated with home-economics related occupations and other employment (18), family life and sex education, management related to every aspect of family living. Not only must home economists become more family-oriented, but recognition must be given to the fact that there is no such thing as a "normal" family structure. Home economics professionals and the curricula must express tolerance for the atypical family: the one parent (mother or father) family, the no parent family, the childless family, the handicapped (physically or mentally) family, the ethnic minority family, the economically disadvantaged family, and families representative of other socioeconomic levels.

#### Allow For Experimentation With New Ideas

However, the narrowness of preparation of some professional home economists can be a handicap to progress. Perhaps progress would be faster and life would be more interesting if more diverse goals were pursued, goals of excellence to be sure, but personalized goals. Effort must be made to respect differences of custom and opinion and to value other individuals, if individuality in others is to be not only tolerated, but encouraged. In order to respect differences in fellow home economists, and in people in general, one must be able to consider all things in an objective fashion. In being objective, the progressive home economist will be flexible enough to allow student teachers and students to experiment with new ideas.

Dr. Bernice Moore has supported increasing emphasis on social science in home economics for many years.(19) The basic concepts and generalizations identified in home economics will be subject to interpretation in numerous ways. Skill courses cannot remain the main thrust of home economics.(20) "Arts and crafts," "cooking and sewing" must be

home economics phrases of the past. Skills will remain as a means to the concept, but the concept formation should become the important goal. If the concept is not learned, then the method of teaching must be changed.

One of the vehicles to accomplish these needed changes may be the professional meeting. In response to this expression of indignation, it has been suggested that a professional home economics meeting at any level should refer to recent, pertinent reading resources; should make valid community, human and material resources available; should offer educational guidance to each person attending; should reach beyond walls of home economics to related disciplines for relevant program contributions; should be accepting of individual differences of opinion; and should create an environment for discussion by all attending.

#### HOME ECONOMICS NEEDS A NEW IMAGE

Despite attempts of the profession to make needed changes, a recent unpublished survey of the opinions of homemaking teachers reported an imperative need for improving and modernizing the image of the homemaking teacher.(21) Perhaps a partial explanation for this is that there is no fully explanatory definition of home economics. One of the most critical problems facing individuals involved in home economics education appears to be that no consensus has been reached concerning what home economics should be to have its own integrity and different instruction from that offered by other departments and schools.

As a practical solution it has been suggested that public relations personnel be utilized more extensively on the national level to interpret the relevancy of home economics to society at large (22); and that prospective members of the profession be rigorously chosen.(23)

Upon analysis, however, it might be that rather than a problem, herein lies a source of hope for home economics. It might be that the lack of consensus as to what the home eco-

nomics profession should be is the very impetus needed during a time of change. It may be that by avoiding present hard-and-fast assumptions related to home economics, the home economics course of study, and the image of the home economics teacher, that rigorous questioning of some of the automatic assumptions of the past will come into play. Values that are worth investigating will not be impaired or destroyed by questioning or learning the truth. Yet, even the loftiest values should allow for individual expansion and expression.

John Platt (24) pleads for diversity, stating that our system is focused and not flexible enough to give us options. Be this as it may, when faced with an environment which

threatens self-development, courageous thinking persons change it through their ability to incorporate the **logic** of the past and the **facts** of the present with the **implications** of the future.

Home economics is in an enviable position: to use constructively different human talents, to find a constructive relation between school and future vocations of students, and to combine respect for future vocation and cultural values. Yet only as individual home economists are increasingly concerned with humane management of contemporary experience, and increasingly concerned with sympathetic professional sharing can the home economics profession truly apply insight to reality. (25)

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## ILLINOIS TEACHER Offers Metric Course

Dear Reader:

Thank you for responding to the questionnaire about continuing professional education last spring. Your responses gave us a more distinct profile of our readership, and your interests and concerns will help to guide the content of future issues.

In addition to the regular content you will be receiving a correspondence course on metrics in the remaining 1974/75 issues of *Illinois Teacher*. Each issue will contain two lessons, and you have the option of participating in the course for credit. The course is designed specifically for home economics teachers, and its major objectives are to help you learn and teach metrics.

Every consumer will need to learn about metrics in order to make wise decisions in the future. As home economists, we can be the teachers of the metric system if we are ready and informed. Watch for the next issue. It will contain the details about enrollment procedures, costs and credit; and it will also contain the first two lessons. This will be in addition to the regular articles and features. Our journal is going to be gaining weight—and providing new opportunities and information for you!

*Judy Oppert*  
 Doctoral Candidate  
 Home Economics Education  
 University of Illinois



## OVT STUDENTS EXPLORE THE

# “World Of Work”

THERE IS GROWING EVIDENCE that the traditional school is not the answer for effective learning for all students. This is especially true of the middle school youth. Early adolescence, ages 10-14, is a critical period in human development. Among the young student's many needs are being accepted by peers, developing a workable dependence-independence pattern of behavior, finding himself, establishing a value system, expanding his intellectual ability by exploring a variety of experiences, and considering broad career perimeters.

The Occupational, Vocational, and Technical Exploratory Program for sixth, seventh, and eighth grade students in the Pittsburgh Public Schools is designed to provide boys and girls, together, career-oriented experiences, utilizing the concepts relating to the “world of work” in what traditionally have been called home economics, industrial arts, and business education.



*This class in Clothing and Textiles is being instructed in sewing and pattern cutting by Mrs. Dorothy Bixler, teacher. She is demonstrating the proper method of pinning a pattern to material. Students also become involved in macrame and crocheting.*



## A STUDENT-CENTERED PROGRAM

The student-centered program, which incorporates the academic disciplines, human processes, attitudes and values, involves the home, school, community, business, and industry to satisfy the unique needs of this group.

Stimulating Occupational, Vocational, and Technical (OVT) experiences acquaint the student with career opportunities and processes in various occupational fields like literary, clerical, persuasive (selling products and ideas), social, outdoor (farmers, foresters, construction workers), science, mechanics, and artistic—all the while keeping in mind that the student takes into consideration his own personal interests and abilities. These experiences, hopefully, will help each student to begin to know himself, his interests, his opportunities, and his ability to work with others, recognizing what is really involved in the “world of work.”

In retrospect, this type of career education is concerned that the student:

- **Know** himself, his interests, and his potentials.
- **Recognize** what's really involved in the “world of work”—business, industrial, community, agency and home.
- **Have opportunities** to work with others—students and teachers—as well as time to develop his own activity.
- **Collect information** to participate in decisions for his future.
- **Have opportunities** to use a variety of resources and media.

The OVT Exploratory Program is organized into three phases, one for each grade level. Phase 1, designed primarily for the sixth grade, is based on four major concepts: human relations, production, communi-

cation, and consumership. Three itinerant teachers—one business education, one home economics and one industrial arts—operate as a team, helping students co-educationally explore these four basic concepts.

## OPEN CLASSROOM CONCEPT

Through the cooperative effort of OVT and academic teachers (language arts, science, social studies, art, and mathematics instructors), role playing and “hands on” activities are planned and conducted in an open classroom environment, utilizing portable equipment, hand tools, and materials. This sixth-grade program is offered at 15 feeder schools from the Model Cities area, South Hills, Arsenal Elementary, and FRELEA (Free Learning Environment). Students spend 80 minutes per week exploring OVT activities in their own schools.

Quality, meaningful, exciting experiences, based on a simulated environment of the “world of work,” is the design for Phase II, and is presented to the seventh-grader through 10 OVT areas: Business Communications, Health and Community Services, Construction, Merchandising, Clothing and Textiles, Information Processing, Foods and Nutrition, Manufacturing, Power and Transportation, and Visual Communications. The general content of these OVT areas of study for grades six, seven, and eight is as follows:

**Business Communication** introduces the student to the use of such business equipment as the typewriter, duplicating machines, and adding machines which aid in communicating effectively in the modern world.

**Information Processing** explores the basic principles of data processing and the wide variety of job possibilities in the computer field.

## *6th-7th-8th-Grade Program Is Career Oriented*

**Merchandising** brings into focus the world of marketing and sales. The student is able to trace the movement of goods from the manufacturer to the consumer.

**Foods and Nutrition** highlights the importance of good nutrition in maintaining a healthy body by allowing the student to plan and prepare nutritious meals and snacks in relation to careers in the food service industry, as well as home preparation.

**Clothing and Textiles** focuses on the care, selection, and construction of clothing and affords the student an opportunity to "create" his own garment and explore the vast career possibilities in the fashion and garment world.

**Health and Community Service** gives insight into the internal operation of medical services and community agencies with emphasis on the wide variety of careers avail-

able in this area.

**Construction** leads the student to explore his interest in the construction field by becoming acquainted with and solving basic construction problems. He will complete projects which will utilize a variety of construction materials.

**Manufacturing** offers the student opportunities to perform activities using selected tools, equipment, materials, and manufacturing processes to make a finished product as a means to explore the world of manufacturing.

**Visual Communications** allows the student to use the media of printing, photography, silk screening, commercial art, and film making to illustrate effective communication.

**Power and Transportation** permits the student to explore the subjects of rocketry, gas and diesel engines, electricity and elec-



The students in *Environmental Arts* are "learning by doing" in a phase of horticulture—planting flowers and plants in a proper soil mixture and with the correct amount of water required for growth.





tronics, and modes of transportation to discover his possible interests and talents in the field.

All of these classes in Phase II meet in the morning once a week. A team-teaching approach is used. Students participate in activities, group and individual, permitting them to identify how the "world of work" concepts apply to careers or avocational interests. Multi-purpose rooms are used, with portable equipment and a minimum of stationary equipment.

### STUDENTS LEARN VIA SIMULATED EXPERIENCES

The interesting Phase II establishes a business (based upon the student's learning-and-doing activities in the 10 areas) and a wage scale for job classifications and the students receive pay in script or tokens. The individual student is involved in organizing, managing, and operating a company. Each subject area has a specific function to perform in relation to the company.

For example, the Business Education Department is responsible for organizing the business, as well as retailing mass-produced products by production areas such as Manufacturing, Construction, Clothing and Textiles, and Visual Communications. The responsibility of the Foods and Nutrition area is to set up a cafeteria to serve employees on the team, programming them on a rotating basis. Home, Health and Community are involved in a service—the health of the employee.

A wage scale is set up for job classification in each area and students are paid via the aforementioned script or token according to the tasks performed in order to purchase goods in the retailing outlet or cafeteria. The money substitute is made in one of the Industrial Arts laboratories.

The inter-disciplinary team of three teachers again is involved in planning and directing all learning activities, as well as counseling each student—identifying likes and dislikes and interest as it relates to future careers.

### PHASE III INVOLVES IN-DEPTH EXPLORING

Having explored 10 areas at the Phase II level, the student, now an eighth-grader, is ready for in-depth exploration of four areas of his choice for nine four-week periods of time. Help is given with the idea of strengthening decision-making for secondary level course selection. The purpose of this in-depth exploration is to develop greater depth of knowledge, to further inquiry abilities regarding the "world of work," and to participate in more specific activities, experiments, and projects that were particularly interesting to him at the Phase II level but were not possible for him to explore because of the time element of three weeks rather than nine.

Activities are self-contained, interdisciplinary, or personal in nature, but are mainly those that can be realistically performed by the students in simulated settings of the "world of work" thus allowing teacher and student to select, adapt, or modify goals in the instructional program.

Emphasis is placed on perceptions of reality so that the student can integrate and catalog basic processes involved within a subject area. In the exploration of the process, he is able to associate it with specific job roles or careers ranging from entry level jobs to administrative, adapting this knowledge to future experiences he will inevitably encounter. This necessarily means the student may function as a member of a large group or by himself in order to discover talents, interests, abilities, and skills—skills here being considered a by-product rather than an end in themselves.

The program incorporates individualized instruction, which allows the student to work at a pace that is challenging but not faster than he is able to achieve. The counseling function at this level is a unique aspect of the program. Its objective is to strengthen student decision-making for selecting high school level courses which continue the OVT programming activities including single and multiple-period experiences (skill centered OVT). Overall, eighth grade students work on specific activities permitting them to begin experience in



*Above, students in the Foods and Nutrition class are busily engaged as pastry cooks preparing breads. Ingredient mixing, decorating, and baking procedures are stressed in an academic and manual combination.*

*Below, working with tally sheets in Merchandising class, this student is learning speed and accuracy, two prime essentials a competent tally clerk must have in order to rate first-class employment.*



*These students* are learning the proper methods employed in Display Merchandising. The manner in which merchandise is displayed in showcases can either attract customers or cause them to ignore it.



any area if they desire. A series of connected laboratory areas are used, emphasizing comprehensive OVT areas. An experimental approach to activities is encouraged. Emphasis on skill development is minimal for presenting the area of study to the student at this level.

**9,557 ENROLLED IN OVT PROGRAM**

Total enrollment in the OVT Exploratory Program, as of November 1, 1972, was 9,557 students. Dr. Jerry C. Olson, assistant superintendent for System-Wide Programs and Services, explains further that exploratory experiences center on general concepts and are best understood by dealing with a large number of diverse examples. He feels that students get the surest grasp of a principle by working with examples of it, having it formulated into a controlling idea, and then trying it out on new examples.

Students are instructed in the operation of a total range of activities. Trial and error methods are advocated, but controlled situations are used to provide these experiences where safety hazards are involved. Limitations and controls are built into activities which help in stemming potential safety problems, but do not interfere with the student's experiencing the total complex activity.

Dr. Alma B. Evans, development specialist for Middle School Planning, points to the "intrinsic values" of the OVT Exploratory Program. She believes that:

The intrinsic value of the OVT Exploratory Program is that it allows students to explore alternative choices relating to the "world of work" and to begin making decisions about their likes and dislikes. It provides a broad scope of career areas that range from administration to management and from technical to the semi-skilled worker. Students gain insight into and sensitivity toward the business and industrial world.

# HOME ECONOMICS, ART, INDUSTRIAL ARTS

## —A Team Teaching Approach

AFTER MANY YEARS of non-flexible, traditional scheduling, Urbana Junior High—Fisher Campus, Urbana, Illinois, initiated flexible-modular scheduling for the 1973/74 school year. Such scheduling allows for varying lengths of class periods and blocking of courses to facilitate team teaching. Yet, the “traditional” teacher was not forced to team teach. Such a teacher could maintain the structure of teaching which had, in the past, been comfortable and satisfactory for him/her.

### BASIC MECHANICS OF THE TEAM

Searching for an innovative and more relevant teaching/learning situation in the areas of home economics, industrial arts, and art, teachers Debbie Gentry, Larry Johnson, and Mary Lu O'Halloran, respectively, developed a team teaching approach named Unified Arts. They were scheduled to have like-grade classes at the same times and likewise to have preparation times together. A block of 72-80 students, boys and girls, were scheduled to the team for each class period being taught. The teachers implemented their own registration procedure and divided the students into the three subject area courses. Since courses were designed for semester length, registration had to be done twice a year. Students could remain in one subject area all year if they wished. However, teachers encouraged students to change or switch each semester so that their perspective of Unified Arts would broaden.

Thus, using a given 7th grade section as an example, at the end of such registration approximately 25 students were assigned to Basic Industrial Arts, another 25 to Clothing and Related Areas, and 25 to Art I. Teachers and students met within their particular chosen subject area or in a combined team situation every other day for six 15-minute “mods” equaling one hour and a half in total.

### PHILOSOPHY OF THE UNIFIED ARTS COURSE

The Unified Arts team of teachers saw three benefits to their approach. First, subject

matter could have increased relevancy to students when they were shown the overlapping similarities between home economics, art, and industrial arts. A list of common principles and concepts could be endless: principles and elements of design, wood selection and care, printing, textile printing, perspective and scale drawing, architecture, electricity, household repairs, leisure time crafts, etc.

Secondly, teaming could facilitate the scheduling of field trips, guest speakers, and the presentation of various visuals. Thirdly, the three teachers could benefit personally and professionally. A sharing of philosophy, techniques, methods, and resources would strengthen each teacher.

### ELEMENTS FOR SUCCESS

Successful team teaching does not come easily. The Unified Arts team became aware of many characteristics which are basic. A most important ingredient is **teacher compatibility**. All the teachers involved must have a desire to team teach, their personalities must be similar, and their teaching philosophy comparable. Chances for good communication and cooperation seem to increase when **team size is small**, two or three members. There must be **administrative support** of their endeavors. An example of such support would be scheduling teachers for **the same teaching**

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Unified Arts-Home Economics  
Urbana Junior High-Fisher  
Urbana, Illinois



*Symbol* designed by Unified Arts students to represent the team.



**and preparation periods.** Also, provisions in their work day or week for **increased preparation time** must be allowed. Teaming requires **much** more time than the typical daily 45-60 minutes preparation. **Classroom size limitations** must be adhered to in order to insure effective teaching and adequate student-teacher interaction. **Classroom space** should be available, particularly space big enough to handle large groups of students, 50-75, comfortably and practically. Of course, **adequate funding** is always a boon to creativity and experimentation.

## TEACHING TECHNIQUES

This being the first year for the Unified Arts Program, it was quickly realized how much time went towards basic organization. Not as much teaming occurred as was hoped. Nonetheless, those activities that were implemented were highly successful and did much for establishing the program. Here are some examples:

1. All Unified Arts students were challenged to participate in a contest for the creation of a symbol representing the team. See p. 19.
2. Eighth grade Unified Arts students took a field trip to Arthur, Illinois, specifically to see the Amish Farmer's Market and the Beechy Custom Cabinet and Furniture Factory. Their tours and travels over the countryside provided a view of a differing culture, differing family life, and custom woodworking techniques.
3. The team acquired a camera, an extra lens, and film for the production of slide shows particular to our large group presentation needs. Independent study students under the team's guidance were most valuable in the production process.
4. A "Certificate of Recognition" was developed and awarded to outstanding Unified Arts students each semester. See page 22.
5. Students need to feel they have a voice and part in classroom activity and direction. Caring teachers likewise want students to evaluate what goes on in the classroom. Thus, the team developed a simple evalua-

tion form for students to fill out anonymously. Tabulated results can carry a valuable message to the teacher.

6. Large group presentations were given involving two or three of the members of the teaching team and their students. A sample lesson plan from one such teaming effort is on the following page.

## FOCUS FOR NEXT YEAR

Hardly half the school year was past when the Unified Arts team found they were already in the process of evaluating their endeavors and projecting recommendations and changes for the coming school year. This had been the first experience with teaming for each of the three team members. They found it to be a productive, meaningful teaching approach. One item of recommendation for the next year is to change the registration or placement process of students into particular courses from the team's hands to that of administrators and counselors during regular registration times. Thus, this would relieve the friction between the team teachers and students when students were unhappy that they did not get their first choice of courses. As mentioned before, teaming requires a great deal of preparation and planning time. It is hoped that the teachers' schedules will allow for additional preparation time next year. In addition, the team is submitting requests for district "summer grant" funds so that they can utilize summer months for program planning and resource development.



## ELEMENTS AND PRINCIPLES OF DESIGN

### Objectives

- Students will understand how the human eye perceives.
- Students will be able to recognize visually the elements of design: form, line, shape, color.
- Students will discover principles of design: harmony, rhythm, proportion, balance.
- Students will relate knowledge of elements and principles of design to their specific course, be it home economics, art, or industrial arts. For home economics—clothing design, students will analyze figure types and personal features and suggest what designs in clothing are most appropriate.

### Methods and Techniques

Slide presentation by Unified Arts team to total group of students concerning functions of eye, basic elements of design, and basic principles of design.

Division of students into particular subject area classes for specific activities designed by teachers to help students further develop and relate knowledge gained from slide presentation.

### Activities

Students will come together to view slide presentation. (20-25 minutes)

Upon separation back into small groups by specific subject areas, students will participate in various activities related to units of study. For home economics-clothing students the following activities are available:

1. Students will collect pictures of various fashions from pattern catalogs, magazines, or newspapers.
2. Students will identify from these pictures of clothing the application of line, shape, color, rhythm, balance, proportion, and harmony.
3. Students will read from text book, *Clothes: Part of Your World*, about recommendations concerning fashion designs for particular figures and feature types.
4. Students will analyze and classify their figure type and personal features.
5. Students will then choose a pattern and fabric for future construction in class that will best apply design principles to compliment their figures and features.

### Evaluation

Determine the appropriateness of pattern and fabric to student's needs as chosen by the student for his clothing construction project.

### Resources

Slides prepared by team members.

Textbook: *Clothes: Part of Your World*. Boston: Vanderhoff, Margil, Ginn and Company, 1973. pp. 52-72.

# UNIFIED ARTS TEAM OF UTHS

*wishes to recognize*

---

*for all around excellence, such as enthusiastic  
interest, respect for self and others, responsible  
attitudes, and quality workmanship in*

*Course* \_\_\_\_\_

*Date* \_\_\_\_\_

*Teacher* \_\_\_\_\_

# DINNER THEATRE

GOOD FOOD AND GOOD ENTERTAINMENT go hand-in-hand to make people happy. The early Romans knew it—their bacchanalian feasts were always accompanied by plenty of dancers, singers, and acrobats. Modern entrepreneurs have revived this ancient tradition with the “dinner theatre,” and the public is eating it up. Three dinner theatres have sprung up in the Kansas City area just in the last couple of years. For the evenings of October 12 and 13, 1973, there was a fourth. Students at Shawnee Mission East High School, Prairie Village, Kansas, presented a dinner theatre production of “Charley’s Aunt” in the school cafeteria. The production was a cooperative venture involving the Entertaining with Foods, Actor’s Studio, and Stagecraft classes.

## SELECTING A MENU FOR VARYING TASTES

Initial preparation for the Entertaining with Foods class involved a study of menu planning and types of meal service. There were several crucial considerations in the selection of a menu. They included:

- Cost
- Advance preparation needed
- Eye appeal
- Temperature retention
- Variety of foods used
- Food acceptable to the varying tastes of the audience

A buffet meal service was chosen as the most practical and convenient method for serving the 200 people expected each night.

The entire Entertaining with Foods class participated in the menu selection. The class was divided into groups, with four girls in each group. They each planned and submitted a menu based on the above criteria, which was then analyzed and critiqued by the entire class. The best combination was formulated by a majority vote. The finalized menu included relish tray, tossed salad, roast turkey, pineapple glazed ham, candied yams, green beans, broccoli casserole, whipped lemon gelatin, French bread, chocolate cake, and cherry cheese pie.

A search was immediately started to locate sufficient quantities of appropriate serving ware. Fifty 13 x 9-inch pyrex casserole dishes were collected for the broccoli casseroles and candied yams. This enabled these dishes to be prepared in advance and frozen. The wood shop class made decorative wooden frames that held the casseroles and protected the table. Pizza pans were borrowed from a pizza parlor for the relish trays. The girls displayed both ingenuity and creativity in selecting the remaining service pieces. A large salad bowl was sunk into a scrub board decorated wash tub filled with ice for the tossed salad. Fondue pots served as salad dressing containers. A punch bowl was used for serving the whipped jello salad. Loaves of French bread were stacked in a curved wood basket. Also, each table had salt and pepper shakers formed from miniature liquor bottles with a hole punched in the top. Dinnerplates, cups and saucers, dessert plates, glasses, and silverware were rented after attempts to borrow these items from the district office, civic, and religious groups failed.

*Locating sufficient quantities* of appropriate serving ware was only the first step. Then, all the dishes had to be washed before using and again after each night’s dinner.

*Suzanne Tate Reed*  
Home Economics Department  
Shawnee Mission East High  
Shawnee Mission, Kansas







*Individual tables* were set for parties of six. White napkins were folded and tied with red yarn and fresh lemon leaves were arranged down the center of each table.



*Red and white* checked paper tablecloths were used to carry out the color theme.



*Preparing food* for 200 people is very different from the usual foods class of four to six students per kitchen.

## STUDENTS ASSUME RESPONSIBILITIES

Chairmen for various responsibilities were elected by the class. These included a general chairman and food, buffet table, decorations, service, table setting, and cleanup chairmen. Each student chose a minimum of three committees on which to serve.

Volunteers from four Foods 1 classes were used as servers. Several meetings were conducted by the service committee to instruct in the proper manner for greeting guests, showing them to their tables, removing plates after the meal, and serving the beverage and dessert. The servers wore red and white checked aprons made from one-half terry-cloth hand towel with a red grosgrain ribbon tie. They were so impressive that one male student even received a dollar tip from guests at his table!

Several weeks were spent experimenting with a variety of recipes for each entree to be served. Following taste testing panels, a final recipe was selected. One of the most difficult tasks followed—estimating the cost per person of the entire meal. Through numerous trips to the grocery store, the students priced each ingredient in every recipe. We then figured the cost of the amount used of each ingredient in the recipe and finally divided that figure by the number of servings in the recipe to arrive at the cost per serving per entree. The total cost per person came to \$3.35. In conferring with the drama department instructors, it was decided to sell the tickets for \$5.00. The portable stage and costume cost was estimated at \$0.65 per person, earning \$1.00 per person profit.

Beginning three weeks before the production, reservations were sold during the school lunch periods and after school each day. Because of the food cost and preparation, no tickets were sold at the door. Publicity within the school was handled by the Actor's Studio class and included a daily announcement in the school bulletin, articles and pictures in the school newspaper, and posters throughout the school. Local radio, TV, and newspaper audiences were informed of our production through bulletins from David Westbrook,



Director of Information Services, Shawnee Mission Schools.

Since red roses on a white trellis were used in several scenes of the play, the decorations committee decided to carry out this color theme by selecting red and white checked paper tablecloths. The small triangular cardboard stands identifying the number of each table was also done in red and white. White napkins were folded and tied with red yarn and fresh lemon leaves were arranged along the middle of each table. On the buffet tables, five edible centerpieces resembling flowering plants in a planter were made with carrot sticks and curls, celery stalks, radish roses and tulips, pickles, green onions, and olives.

*These students* are busy preparing radish roses and carrot curls to be used in the five edible centerpieces for the buffet tables.

## OPENING NIGHT MEANS A BUSY DAY IN THE KITCHEN

Although much food was prepared and frozen in advance, there was still a vast amount of preparation necessary on the day of "opening night." A letter was written to the students' respective instructors explaining the situation. If convenient with the instructor, the letter was initialed and returned, and the student was dismissed to the home economics room for the day.

A previously prepared time and duty schedule for the two days of the dinner theatre was posted in the home economics room. Each student had assigned jobs throughout the day. Two students were assigned as "floaters" to assist any group that may have gotten behind schedule. On Saturday, all Entertaining with Foods students were requested to be at school at 1:00 P.M. Several students, along with the



instructor, cleaned and prepared the turkeys for roasting both mornings at 6:30 A.M. The regularly scheduled Foods 1 classes were given study materials in advance to keep them busy on Friday while the Entertaining with Foods class used the kitchens. The Foods 1 students proved invaluable as assistants, running errands, or making phone calls.

On the two nights of the production, a student hostess passed out programs as the guests entered the cafeteria. The tickets had been sold on a reserved seat basis, so a seating chart was available for the hostess to aid any of those guests who may have forgotten their table number. The student servers greeted the guests, escorted them to the proper table, and seated them. After each table of guests had served themselves from the buffet table, the server inquired as to the individual's choice of beverage. This was brought to them and refilled when necessary. After the meal, the servers removed the dinner plates and served a choice of dessert. During intermission, coffee and iced tea were served.

The principal and associate principal acted as willing chefs at the buffet table by carving and serving the turkey and ham. The turkey had been carved in advance, arranged on a platter and garnished with crab apple rings. The "chefs" were outfitted in a white apron and chef's hat donated by a local restaurant.

Since the oven space in the home economics room was limited, the cafeteria and cafeteria manager were hired for several hours each evening before the meal to heat foods for serving. The cafeteria freezer and refrigerator were also used many times in the days preceding the dinner theatre. The cleanup process began as soon as the first plates were cleared and continued until the early morning hours. No automatic dishwashers were available, so many hours were spent on this task. Even a few boyfriends appeared to help with the job. All rented dishes had to be counted and packed. Borrowed items were returned and gratefully acknowledged.

Complete student involvement and inter-school cooperation was a key ingredient in the dinner theatre production. Students in the three classes received grade credit for the

venture, but the teachers saw the challenge of a new experience as the major benefit.

Those early Romans knew it: good food and good entertainment truly do go hand in hand to make people happy. Now we know it!

\*\*\*\*\*

## We Need Your Help!

*Illinois Teacher* is planning a future issue related to teaching for the dual role. What innovative techniques or materials have you developed or adapted for teaching about the dual role of homemaker and wage-earner to students in your classroom? We would like to share your ideas with our readers.

Please send copies of materials, descriptions of techniques, black and white photographs, etc. by November 1, 1974, to:

**ILLINOIS TEACHER**  
**351 Education Building**  
**University of Illinois**  
**Urbana, IL 61801**



# CHILD LIFE AND LITERATURE:

## An Interdisciplinary Study

THE BEGINNING of any course, and particularly a course developed between departments, goes back to many times and places and people. The background of Child Life and Literature at York Community High School is no exception. The idea for the children's literature section of this jointly sponsored course began as a short unit of independent study arising from the study of Victorian literature in an English literature course for seniors at Robert M. LaFollette High School, Madison, Wisconsin, in 1965.

Students perennially lament that they have not read some of the traditional classic childhood books that "everyone" has read. The unit in 1965 provided an opportunity for students to retrace their steps and pick up readings they had missed. The short, independent, and very casually constructed reading assignment—"pick up a book you're sorry to have missed"—and the equally casual reporting of the reading—"indicate, in writing, that you have read and discerned the subject matter and the style of the book you have read"—proved so popular that more time and a bit more direction was provided the next year. The opportunity to write an imaginative report on the reading of children's literature led to Show and Tell Time for sharing experiences recalled from childhood. At this point the incidental nature of the unit ended and the course in children's literature began.

During the 1969/70 school year at York Community High School in Elmhurst, Illinois, the unit was expanded and designed as a short course to be used as a part of several courses being given at York for credit. The York library developed a children's book section. Creative writing classes used the library facilities for a "Writing for Children" unit, the York High School literary magazine, *Collage*, included poems for young children. Within the Home Economics department, the Child Development classes used the library materials and developed a twelve-week pre-school for three- and four-year-olds.

In casual conversation at the lunch table, we became aware that the child literature section would be enhanced if the students coupled it with the study of child development.

We were particularly interested in providing a course for high school students where they could appreciate the literature, art, and musical interests of children and relate them to the needs and requirements of healthy growth. Such a course would have as its dual concerns the adult dealing with children, and the needs of the children themselves who are in the care of these adults.

Individually, as a Department Chairman of Home Economics and as an English teacher, we surveyed our classes; and finding our students interested in such a course, we planned the semester course **Child Life and Literature**, jointly offered by the Home Economics and English Departments, and carrying credit in either department. Nine weeks are to be spent in the study of the child in home economics and nine weeks in the study of children's literature in English.

### A PHILOSOPHY OF POSITIVE SELF-ACCEPTANCE

The following concepts about the early development of children and the foundations necessary for positive self-acceptance will be developed during the nine weeks in home economics and the nine weeks in the study of the child and literature. The focus and philosophy upon which the course rests are that children develop their personality through three specific mechanisms: introjection, identification, and sublimation. Introjection is the unconscious absorption of ideas, ideals, attitudes, and values, plus concepts of right and wrong. Identification is the copying of language, vocabulary, role behaviors, customs, facial expressions, and other mannerisms. Sublimation is how the child transforms his natural instincts into socially acceptable behavior. For example, it is natural for a child to want to feel his food, investigate his body, but in order to become socialized he needs to change these behaviors into acceptable social behavior for the particular time and place.

Attitudes toward himself and the world are among the most important things that a person acquires. The wrong encounters and

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English Teacher and  
*Helen Gum Westlake*  
Home Economist  
York Community High School  
Elmhurst, Illinois



on McKinney



Westlake

experiences that the child has can build up his ideas about the kind of person he is, about what others are like, and about what he can expect from the world. If the child is fortunate, he learns to feel that he is an important person, a loving and loved person, a successful person, one who can explore and discover, enjoy and create; one who can have things and do things as well as one who has his own set of advantages and problems. In other words, he develops self-confidence and respect. These attitudes grow out of experiences of being treated with respect from the beginning. It is important that the majority of his experiences be the kind that help him feel confidence in himself and trust in the people around him.

Approval by others who are significant in a child's life instills the beginnings of self-approval, and disapproval by significant persons leads to self-disapproval. As a child is appraised by "significant others," so in time he appraises himself. The impact the parents have on a child depends not only on what they actually feel or think or do but on the child's perception of what they think, feel, or do. The child's view of himself is created by how he is treated, by the kind of responses he receives from others, and by how his emotions, actions, statements, and observations are translated to him. The adult should realize that young children see everything as either black or white, with no shades of grey. He considers himself either naughty or nice, good or bad, lovable or awful. Adults also need to remember that to be human is to have all kinds of feelings—love and hate, compassion and competitiveness, courage and cowardice.

Thus we need to respond to children's emotions and social stirrings so that the child can learn to like, accept, trust, and respect; that is, love himself. In communicating with a child, one should send messages that preserve his self-respect as well as the adult's, and statements of understanding should precede statements of advice and instructions.

To discipline is to educate. The real test of methods of discipline is whether in the long run they contribute to the child's feeling worthy and loved rather than unworthy and

unloved. Constructive discipline provides children with much of the guidance and encouragement they need in the process of growing up. It can 1) provide them with opportunities of expressing themselves in acceptable ways; 2) protect them from physical harms; 3) protect them from their own impulses; and 4) keep them from infringing on the rights of others.

Thoughtfulness of others is a trait that is instilled in the child not by punishment or rote but through genuine display of love and consideration for him and others in the environment whether he relates through art, literature, fantasy, or his daily routines. The total aim of this course is to learn how to share with and care for children and perhaps in turn to appreciate ourselves more thoroughly. In the cooperative work for this course, an additional reward may be a more succinct understanding of the two fields, English and Home Economics.

## INSTRUCTIONAL OBJECTIVES FOR CHILD LIFE AND LITERATURE

1. The student will be able to demonstrate selected guidance techniques which will contribute to the physical, social, mental, and emotional development of the child.
2. The student will be able to summarize the potential effect of selected child care practices on the behavior and development of children.
3. The student will be able to demonstrate how to select and improvise play activities and materials for children on the basis of their ages and stages of development.
4. The student will be able to interpret the value of supervised individual and group activities to the growth and development of children.
5. The student will be able to analyze and pay attention to differences in the rate and sequence of development for individual children.
6. The student will be able to talk knowingly about children's books that he has read.
7. The student will be able to compare children's books using criteria for critical



evaluation.

8. The student will be able to suggest books for children of a particular age and for children with special needs.
9. The student will be able to read aloud to a group of children or talk to older children about a book.
10. The student will be able to outline the resources in the community for children's literature.
11. The student will collect information on, and annotate a list of books he has read during the course.
12. The student will practice the skills and techniques of observation with children.

## COURSE ACTIVITIES

- Students reminisce about beloved books from childhood and write essays about their experiences.
- Students arrive at working definitions of children's literature, children's guidance needs, children's interests, children's musical and artistic appreciation, children's curiosity.
- Students share stories, puppet shows, art projects, and music with children in pre-school and public schools.
- Students visit pre-schools and grade schools to observe children.
- Students guide children in a learning experience.
- Students discuss child needs with pediatricians, parents, teachers, clergy, and law officers.
- Students read broadly in children's literature and in books on child development.
- Students visit resources in the community for children such as libraries, art institutes, museums, playgrounds and try to analyze them in terms of their knowledge of children and children's literature.
- Students role-play self-devised situations that occur between adults and children, children and children, authorities and children.
- Students develop open-ended sentences, stories, and situations to be used with children.

- Students create works of art or literature for children of a specific age.

## CHILD LIFE AND LITERATURE RESOURCES

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#### **FILMS**

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- International Film Bureau, Inc., 332 South Michigan Ave., Chicago, Illinois 60604. *The Behavior Game*. *The Chairy Tale*. *Desk for Billie*. *The Hickory Stick*. *The Red Balloon*.
- Iowa State Mental Health Authority, State Office Building, Des Moines, Iowa. *First Lessons*.
- McGraw-Hill Text-Film Division, 330 W. 42nd St., New York, New York 10036. *The Fire Man is Scared and Cries*. *Your Own Yard To Play In*.
- Michigan State Department of Mental Health, East Lansing, Michigan. *Angry Boy*.
- National Film Board, 680 Fifth Ave., New York, New York 10019. *Frustrating Fours — Fascinating Fives*.
- Time-Life Films, 43 West 16th St., New York, New York 10011. *How Do Children Think?*
- University of Michigan, Audio-Visual Education Center, 416 Fourth St., Ann Arbor, Michigan 48103. *Evan's Corner*. *Leo Buerman*. *Rock-A-Bye Baby*.



# INDEPENDENT LIVING

WHAT IS BLACK AND WHITE and red/read all over? Riddles from childhood days had simple answers that all but the youngest knew. Today's riddles are not so easily answered. Certainly our newspapers are not always black and white anymore. Scheduling in high schools was once as simple as finding answers to childhood riddles. If you had been a Robin in earlier days, you took academic courses. If you had been a Bluebird, you were placed in what was considered the "practical" courses. Fortunately, times have changed. At Hampden Academy we found that changes were needed, and needed fast, these past few years. Scheduling is now a job for the computers.

Students who had graduated from Hampden Academy were interviewed. Results showed that students were lacking in skills needed for basic everyday living. These students, along with students attending Hampden Academy, were then asked to help plan a course to attempt to fill these needs. Independent Living was the name chosen by the students that would best fit the course. From this preliminary planning, the following objectives of the course were chosen:

1. The student will be shown how to perform tasks necessary for responsible living beyond high school.
2. The student will be exposed to ways of consumer buying through the use of credit, contracts, budgets, and comparative shopping.
3. The student will be introduced to resources to use in the future so that he may continue on in the areas of self-improvement.
4. The personnel involved will attempt to reach out to the community and other schools to share information gained.

Our philosophy is Independent Living classes will be alive! Useful, relevant content will be taught, any idea can be discussed if it is going to affect the student after graduation, and changes can be made any time where they are feasible.

Our method of procedure depended on flexibility in students' schedules as well as cooperation among departments within the school. Since two heads are better than one,

we reasoned three heads would be even better. The Home Economics Department, Social Studies Department, and the Business Department joined together to build a relevant course of study that would be available to **all** students. Since tracking had been done away with at Hampden Academy, and since courses are planned on semester and quarterly bases, the problem was simplified as to scheduling. Three divisions are taught each semester all at the same time. At the end of each six-week period, students rotate to the next segment of the course.

## OBJECTIVES

Specific objectives of the three segments are as follows:

### Business

1. The student will be able to interpret and evaluate warranties, guarantees, and service contracts.
2. The student will be able to interpret and classify types of loans.
3. The student will be able to identify banking procedures.

### Home Economics

1. The student will be able to identify values and goals—what they are, how they change as time goes by, and how they are formed.

### Social Studies

1. The student will identify some of the agencies and ways of obtaining legal help.
2. The student will be able to identify ways to protect himself and his family in the area of health and security.
3. The student will be able to differentiate and to compare ways to buy new and used cars.

## TEACHING TECHNIQUES

Methods used for teaching are the usual ones emphasizing resource persons, field trips, and actual experience where possible. No textbook is needed. Instead, free or inexpensive, up-to-date pamphlets and

*Glenna Atwood*, Director  
Independent Living  
Hampden Academy  
Hampden, Maine

(Continued on page 34)



*When studying car buying*, the students get a firsthand look under the hood.

*Opposite page, above: Students* who have an interest in child-care oriented careers get an opportunity to work with the nursery school of the home economics department. *Below, left: This class in furniture refinishing* offers adults an opportunity to update their knowledge for better independent living. *Below, right: Decorating* on a budget is easier these days with the revival of interest in crafts.



*A money game* changes the pace for the section taught by the business teacher.







(Continued from page 31)

periodicals are evaluated and used. Working towards an overall understanding of each topic taught, the three teachers plan carefully to include what is necessary without having a lot of overlapping. See pages 35 and 36 for an example of how the three areas cover "Buying a New or Used Car."

One of the requirements of the course is for each student to choose and complete one Long Range Project that will help him to fulfill his own specific needs and goals. One student planning to travel broke his topic down as follows:

#### TRAVEL

##### Home Economics

Planned the trip and a study of foods, prices, style of clothing, housing, and ways of living in different countries. How much should one tip? What are the advantages and disadvantages of the different modes of travel?

##### Social Studies

Understanding the culture of foreign people. Understanding legal aspects of traveling abroad. What protection is available for the tourist?

##### Business

Learning about passports, visas, cost of travel, value of money in different countries, how to use traveler's checks.

On pages 37-40 is the lesson we have used to introduce the course. Appropriate overhead transparencies are used but slides or pictures could be substituted.

#### EVALUATION

Over 150 students have completed this course during the past two years. Pre-testing and post-testing have shown significant gains for the students. Even more gratifying are the remarks made by students who have completed the course. Over and over again the students tell us how the course is filling their

needs. "It's what life is all about," is a common remark. One girl went out and bought a used Volkswagon with confidence. The salesman was very surprised to find her so knowledgeable.

The teachers and directors are most enthusiastic. They have benefited in many ways through their involvement. They have met a variety of people, attended consumer-oriented classes and workshops, visited other schools, and have experienced a lot of carryover into other classes.

An advisory board made up of other teachers, students, and lay people has provided much help and encouragement. Adult evening classes patterned after the daytime classes is another extension of the project. A follow-up of each student after graduation is being carried out.

The students, teachers, administrators, and parents all seem to agree that Independent Living is one more course offered at Hampden Academy that is headed in the right direction.

## BUYING A NEW OR USED CAR

### HOME ECONOMICS:

Buying a car involves the teaching of values and goals and comparison shopping as well as budgeting. The worksheet used for budgeting purposes follows. The students find this practical since it shows the complete cost involved.

### WORKSHEET FOR TRANSPORTATION BUDGET PER MONTH

Total Income_____	Total for transportation_____
	(15% of total Income)
Price of car of choice_____	Check one: ____2 yr. ____3 yr.
Financed for (check one): ____1 yr. ____2 yr. ____3 yr.	
Down Payment_____ (1/4 of Total price)	Rate of Int. _____
Monthly payment (use chart provided) .....	_____
Average no. of miles driven per month_____	
Average no. of miles per gallon expected_____	
Cost of gasoline per gallon_____	
Cost of gasoline per month ( _____ ÷ _____ x _____ =	_____
Total miles miles per gal. price per gal.	
Average cost of upkeep (oil change, grease, tune-up, inspection, tires, etc.):	
total for year ÷ 12 =	_____
Excise tax, Registration & License _____ ÷ _____ =	_____
Total 12	
Insurance _____ ÷ 12 =	_____
Total	
Cost of any other vehicle in the family _____	
Costs for other means of transportation _____	
Total Transportation costs	_____
(Is this total more than allowed on the top line?)	_____



## **BUSINESS:**

Again **Buying A New or Used Car** is involved in all three of the objectives of this segment. Many of these lessons are obvious. However, one of extreme importance is entitled "**How to Deal With a Car Dealer**"!

### **Teaching Techniques**

Role Play: Choose someone to be the car dealer. Have the following approach the car dealer for his reaction:

1. An 18-year-old boy with long hair dressed in jeans.
2. An 18-year-old boy well dressed with short hair.
3. An 18-year-old girl.
4. A teen-age couple.
5. A middle-aged well-dressed couple who obviously have lots of money.

Discussion follows with assignments being made for each student to choose a car dealer to whom he will make an actual visit. The student then reports back.

### **Conclusion and Evaluation**

Students and teacher will compile a list of helpful facts learned that will help assure the student he will be able to deal with the dealer intelligently.

## **SOCIAL STUDIES:**

Probably the most time is spent by the student on **Buying A New or Used Car** in the social studies department. One objective here is for the student to learn how to go out to buy a car, to know what he is doing, and what he is looking for.

The student sets up his own situation: He already has a car so he fills in information on the year, condition, and actual book value. Next he decides on a car, either new or used, that he would like to own instead. Going through the whole procedure the student learns through a variety of ways including hearing a speech by a car dealer and/or car insurance salesman; visiting and talking to car dealers; using consumer magazines; consulting car dealer books containing tables for dealer costs and suggested prices, monthly payments, and added costs for accessories, freight, and taxes; and analyzing advertisement techniques.

One particularly useful lesson involves buying a used car. The students are taken to see a used car—usually to one being worked on in the Industrial Arts Department. The assignment is to assume you are buying this car. Look it over and list anything you notice that is wrong or should be questioned. After a reasonable time, the students then have an experienced mechanic tell them all the things they should look for—meanwhile telling them what they should have noticed on this particular car.

## THE TWELFTH YEAR ITCH

[or the Itch to become Independent]

### 1. Introduction (*Title showing on overhead*)

The twelfth year itch commonly occurs during the Spring of the senior year in high school. However, it may appear anytime from the freshmen year on. It is not that easy to cure but there are ways of treating it so that in time a truly beautiful cure will be in evidence—that is, when you find that you are out on your own and handling life's situations with complete, or almost complete, maturity.

### 2. How do we recognize this Itch?

There are many **symptoms** actually, such as restlessness, disinterest in school attendance, etc. But probably the most obvious are remarks that slip out, such as:

(*placing corresponding transparencies on overhead*)

\_\_\_\_\_ My parents are so old-fashioned.

\_\_\_\_\_ They won't let me be me.

\_\_\_\_\_ I'm too old to have to have a curfew.

\_\_\_\_\_ School is so boring. I can't wait to be through.

\_\_\_\_\_ I just want to be free.

\_\_\_\_\_ I'm getting my own apartment the day I'm 18.

\_\_\_\_\_ I'm going to travel.

\_\_\_\_\_ I'm going to find out who I am.



### 3. So you want to cut the strings and be on your own?

How well prepared are you to “cut the strings”?

*(Place transparency of tree on overhead)*

Like this tree, your roots are deep—what has been affects what you are, and what you will be.

You may have been influenced by: *(place corresponding transparency)*

**Parents    School    Church    Friends    Relatives    Others**

What have you gained from each? *(Take suggestions from students and using overhead pencil, write under appropriate column)*

Ex: Parents	School	Church	Friends
values	values	values	values
goals	knowledge	religion	
habits		faith	
attitude		understanding	

*(Elaborate according to group—suggestions follow)*

Before we go on, let's take a look at the cycle we go through going from dependency to independency . . .

1. We start with complete dependency at birth. Birth is such a miracle right down to the fact that parents are provided (usually) to shower love and care upon this completely dependent human being. Each baby deserves the right to have a mature set of parents who have learned what is involved with being independent. From here on, if the cycle is what we hoped for, our dependency on our parents will get less and less.
2. The parents go out and baby is left with a carefully chosen babysitter (and actually survives).

3. The first really huge break comes when the child goes off to school. If Mom and Dad have done a good job instilling security while having provided many opportunities for the child's growth in getting along without them for short periods, school should be a welcome step. We've all seen those children who were not ready for this step. Obviously the teacher becomes a kind of mother substitute.
4. Hopefully, the child has been exposed to other playmates, but now he is exposed to many more and widens his circle of friends. Each time he becomes involved with other people, he can reduce some of his dependency on his parents.
5. The next big break comes when he spends a night with friends, or goes away to summer camp. If he can do this successfully, he will have more confidence in his ability to adjust without his parents to run to. (Remember, that all this time Mom and Dad are still always available to fall back on. They are still the security blanket available as needed. Remember also that it takes great love to give your child the freedom to try his wings.)
6. Other opportunities for taking on responsibilities come along:
  - first job
  - driver's license
  - first date (children must be taught, "If you are ready to date, etc., you are ready to be responsible for your actions." Again it takes great love to push baby from the nest.)
  - career choice (12th year itch?)

### **Are you truly independent?**

Technically no. We are never truly independent. We depend on others for many things but most important are companionship and love. Man cannot live without love.

7. I suppose this is why just when you have become independent you start looking for a mate. It is only when you have two mature well-adjusted people who know how to be happy within themselves, that you will have the ideal workings for a marriage. These two people can become something more together than either of them could have alone.



8. One of the great things is that they can become parents (*place previous transparency back*) and the cycle starts again.

Now let's go back to the place where you are—11th or 12th grade. If you are not afflicted with the itch to become independent yet, just wait; you will be.

To be sure you will someday be rewarded with the ability to be independent. What are the things that we can treat you with this semester? What knowledge, experiences, etc., do you need? This course is for you, by you, with teacher guidance. Hopefully, it will be filled with student involvement leading towards making you a better, happier, well-adjusted citizen.

*Place transparency—using pencil write basic areas where there is need as suggested by students, such as—*

*housing, transportation, jobs, recreation, making new friends, insurance, medical care, food, clothing*

Depending on time and situation, conclude class by:

1. Summarizing:

- A. The first portion of our life is spent working toward the day we can be independent.
- B. There are many opportunities to try our wings and take responsibility; at the same time lots of love and security must also be available.
- C. We must have recognition of our self worth and a willingness to make commitments. **OR**

2. Have many newspapers available. Divide in groups and check on availability of apartments, entertainment, groceries, clothing, etc. **OR**

3. Divide into buzz groups to gain suggestions for course content. **OR**

4. Any way that will meet the students' needs.

# TWO FOR ONE

## IN VOCATIONAL EDUCATION

While working for the State Department of Education, in the capacities of State Supervisor for Industrial Arts and Assistant State Supervisor for Home Economics, the authors of "Dynamics in Design" had an opportunity to see the real need that existed in tying pre-vocational course offerings together. The intent is to enable students to recognize the relationship of vocational courses to one another, and the multitude of career possibilities that exist.

THE COURSE, DYNAMICS IN DESIGN, is one small part of the many co-mingling possibilities within the vocational areas. It was designed to be tested as a possible means of moving to semester courses, thus allowing a larger number of investigative career offerings to be directly tied to specific areas of interest. With this in mind, the authors and designers of the course materials worked toward combining faculty talent in a united effort so that broadening of content areas could be achieved. They found that not only did the developed materials show the inter-relationship of facts but also the necessity to relate all the "general educational information" into a usable form. By beginning with a combination of home economics and industrial arts, the authors are striving to show the possibilities other subject areas have in common and the ability of this approach to lessen the duplication that occurs within these areas of study.

Rio Grande High School in Albuquerque, New Mexico, was selected to implement the course for the 1973/74 school term. In their attempt to make education more relevant, they experimented with this co-mingling of home economics and industrial arts.

The course, Dynamics in Design, is built around four sections of instruction: Design and Architecture, Consumer Education in Relation to Housing Needs, Decorating, and Landscaping and Maintenance. Each section is geared to four weeks of instruction, one hour a day, for a total of 80 hours of class time during one semester. In each section of the course, career possibilities are stressed.

### DESIGN AND ARCHITECTURE

The following topics are covered in this section:

- General Considerations—features wanted
- Examining Existing Plans—blueprint reading
- Traffic Patterns
- Zoning the House—areas of living
- Basic Drafting Techniques—tools and their use
- Size and Dimensions
- Stairs and Hallways
- Home Styles and Shapes
- Building Site
- Electrical and Plumbing Features
- Career Possibilities

### Objectives

The student will be able to:

1. **Read** basic blueprint and brochure information on home styles.
2. **Determine** features wanted in home design.
3. **Establish** traffic patterns suitable for home needs and style.
4. **Recognize and locate** areas of living within a home and identify zones of family living.
5. **Develop** basic electrical and plumbing needs in home construction and feature function.
6. **Learn** dimensions and establish workable size relationships for features wanted.
7. **Recognize** different home styles.
8. **Design or redesign** floor plans to meet the needs of home features wanted or style of living projected.
9. **Locate and use** stairs and hallways most advantageously.
10. **Select** building sites to conform to home features wanted.
11. **Recognize** basic electrical and plumbing requirements in home construction and/or features designed into mobile homes, rental homes, etc.

### Teaching Techniques

Design and draw or redraw floor plans representative of the student's home require-

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Albuquerque Public Schools  
and  
*Laine Bransford Fisher*  
HERO Coordinator  
Rio Grande High School  
Albuquerque, New Mexico

ments and future desires.

Develop a notebook which will have examples of home styles, floor plans, room arrangement, traffic patterns, zoning, stair and hallways, landscaping, size and dimensions, and electrical and plumbing possibilities.

Develop a list of terms and design functions which must be dealt with when designing, building, or dealing with dwelling possibilities.

Arrange for guest speakers who work with architectural drawings and designs and/or real estate.

Plan field trips to building sites.

Provide group work and evaluation seminars.

Present films and filmstrip presentations.

Develop a descriptive list of careers that relate to design or redesign and architectural activities.

## CONSUMER EDUCATION IN RELATION TO HOUSING NEEDS

Topics covered in this section include:

- Family Needs
- Location and Selection
- Mobility Factors
- Financing and Cost Involved
- Realtors and Resale
- Career Possibilities

### Objectives

The student will be able to:

1. **Recognize** that clarification of self values and goals (based on any given stage in the family life cycle) give direction in making housing decisions.
2. **Develop** a house plan to satisfy personal and family needs and values in given situations.
3. **Recognize** that location of housing affects its value, resale possibility, and family situation.
4. **Investigate and develop** criteria on which to base consumer decisions regarding financing and maintaining a home.
5. **Investigate and develop** criteria for career possibilities in the consumer education unit.

### Activities

Develop family life cycle situations (by groups) and have students determine housing needs for their particular group (e.g., young married couple; expanding family; young-growing stage; teen-age stage; launching stage; and later years).

Develop and list in order of importance to you, values and goals which affect housing decisions. Based on these values and goals (the 10 most important), set up criteria for basic housing needs to satisfy these values and goals. Begin to design a house based on these criteria.

Distribute worksheets on location of housing (things to look for, avoid, etc.). Using this worksheet, students working in groups are given a housing situation and asked to determine what location factors affect the cost of the house and how much the house should cost on the "open market."

All students develop a total price for their house (no appliances or accessories included). Assign various lending situations to the students (e.g., V.A. Loan; Bank Loan—Amortization schedule; Savings and Loan Association—Amortization schedule; no down or low down payment (\$1,000); 10% down, 10-20-30 years to pay back). Students are to figure the total cost, amount of payment per month, and total amount of interest paid. Develop a schedule for money necessary for maintenance, furniture purchase, appliance purchase and repair, insurance costs, cost of fixtures, and accessories.

In groups, explore the job possibilities in consumer related areas. Using the want ads from the local newspaper, make a job board by posting the jobs in each specific area on the board. Write a resumé based on how you feel you qualify for any one particular position on the job board.

## DECORATING

Six major topics are included in this section.

- Elements of Design
- Wallpapering, Paneling, Painting





*These three students* enrolled in the design and architecture section of Dynamics In Design are working on floor plan drawings.

- Selection of Furniture
- Accessories
- Floor Coverings—Selection and Durability
- Career Possibilities

### Objectives

The student will be able to:

1. **Interpret** art principles as they relate to the beautification and livability of a home.
2. **Recognize and illustrate** the aesthetic character of housing and interior decoration as it affects individual and family members (e.g., psychological and sociological implications).
3. **Form judgments** in selecting and arranging appropriate quality and aesthetically pleasing home furnishings, treatments, and accessories in a given situation.
4. **Make decisions** as to appropriate accessories for the home in a given situation.
5. **Make economic decisions** regarding decorating a home utilizing paneling, wall-paper, or paint to achieve harmony and beauty in the home.
6. **Explore and develop** criteria for career possibilities in the decorating field.

### Activities

1. Using magazines, find at least one example of each of the elements of design (line, texture, color, etc.) and mount the example on a piece of construction paper. On the back, discuss the principles of design chosen and the reasons for your selection. If a picture covers more than one element of design, be sure each element is discussed thoroughly.
2. Choose a color scheme for a room in the house you are presently working on. Discuss also at least three elements of design you plan to use in this room to enhance its beauty and livability. Justify or explain all reasons or statements.
3. Choose one of the examples you mounted in activity 1 and discuss the psychological and sociological effects it would have on your present family situation. List examples based on your own family situation.
4. Using magazines, locate an example of three different styles of furniture. Mount

the examples on construction paper and label each one. Compare and contrast these examples as to suitability, durability, cost, particular features you like or dislike and why, and how (if possible) they could be combined in a room.

5. Choose a specific furniture style or styles for one room of your house. Using a catalog, obtain prices for every piece of furniture used (do not count accessories unless they are considered furniture and in a chosen style).
6. Choose three to five accessories for the room in activity 5. Be sure they tie in with the furniture styles you used in activity 5. Itemize the cost of these accessories.
7. Compare costs of paneling, painting, or wallpapering (or any combination of the three) a room in your house. Choose the one you would prefer based on economics and aesthetics. Discuss how this relates to the color scheme you chose in activity 2.
8. Compare carpeting with another floor covering. Keep in mind cost per square foot, color, life and durability, service, maintenance, and family needs.
9. Plan a field trip to a furniture store or interior design studio to list the various jobs available within this one career area.

## LANDSCAPING AND MAINTENANCE

The following topics are covered in this section:

- Determining Landscaping Requirements—plot plans
- Plumbing Maintenance—outdoor and indoor requirements
- Electrical Repairs
- Position of House on Lot
- Remodeling
- Maintenance of Existing Landscaping
- Career Possibilities

### Objectives

The student will be able to:

1. **Recognize different types** of landscaping available to house design.
2. **Understand plumbing needs** for indoor and outdoor use.

3. **Understand the results** of positioning of a home.
4. **Understand methods** of remodeling of existing building and additions.
5. **Understand painting techniques** used in interior and exterior applications.
6. **Understand basic electrical** repair needs.
7. **Know methods** used in maintaining existing landscaping.

### **Teaching Techniques**

Design and draw plans for landscaping existing home styles (refer to unit on design).

Incorporate examples of styles of landscaping which can be used to represent individual needs. Place examples into notebook.

Develop lists of plants, trees, or shrubs that could be used with a particular style home, or in area of the country where home could be built.

Provide guest speakers such as a nursery or garden man and/or a building contractor.

Plan field trips to nursery or garden centers and to various home sites representative of different types of landscaping and housing style.

Establish a list of all types of landscaping used in existing home style (refer back to activity 1 and to unit on design).

Allow for group work and evaluation seminars.

### **CONCLUSION**

Dynamics in Design can be housed in the existing drafting facilities or home economics facilities, with only equipment or supplies used in an architectural drafting or interior design class. Activities of the class are centered around hands-on lab activities, media presentations, discussion groups, lectures, guest speakers, and field trips. By allowing teachers the opportunity to team teach, working in the areas of their expertise, total course strength is greatly enhanced. The teacher can either move from classroom to classroom or students can be moved, the latter of the two most appropriate, so as to aid the teachers in their demonstrations and class preparations.

With team teaching in the pre-vocational

and vocational areas, student potential, thus, can be channeled in an accountable, positive and uncluttered manner by allowing the individual to see the value of their interdisciplinary approach. Students also have the opportunity to see what some of the more advanced classes, in specific areas of instruction, will hold for them. At present, Rio Grande High School offers: Building Trades, Interior Design, Architecture, Business Math, Agriculture, Distributive Education, and Home Mechanics courses which can be tied directly into the Dynamics in Design course. There are, of course, many other pre-vocational and vocational course offerings at Rio Grande High School.

Accountability encompasses more than just keeping track of equipment and supplies. It also relates to faculty knowledge and involvement in the total educational process taking place in any single institution. Course co-mingling is an attempt at achieving relevance and accountability.



(Continued from page 5)

Home economics is a people-oriented profession. In this sense our philosophical base remains as sound today as at the time of its formulation with the first Lake Placid Conferences. Specialists in the field, thus, must explore all possibilities that afford opportunity to work with individuals and families in helping them assume those roles that increasingly lead to a satisfying quality of life. To achieve these ends, the profession needs to focus on the economic and social problems that affect how people manage their lives. Home economics needs to be part of the action scene shaping public policy as it affects this management process. Home economics alone cannot meet all needs of people. Our virtue is in knowing our limitations as a profession. Our strength is in determining the uniqueness of the contributions the profession can make to the resolution of problems in the broad areas of human and societal concerns. Relating all people to the world is a continuing process—in today's times and for the future.

Contacts with people must extend beyond the traditional school, business, and government settings. Why not home economists with more visible roles in the planning of housing complexes? Why not home economists employed in homes for emotionally disturbed children? on staffs that work with persons paroled from the prisons? in nursing homes for the elderly? as consultants in orphan homes? on teams that work with immigrants to our country? employed in legal firms as counsels for families? These expand the areas in which presently we are exploring the contributions home economics can make, but areas in which our visibility needs to be more pronounced.

Now evident are scientific and technological innovations that will have a tremendous impact on how people live and relate to each other. Yet, are we adequately tooled to meet the challenges of these discoveries? What are we doing to help people to live more effectively in resettled rural areas, not farm areas per se? to operate effectively in a cashless society? to envision the impact of ocean farming? to accept death as an inevitable fact of life? to plan homes that maximize solar heat-

ing? to recognize the consequences on families of conquering outer space? to deal with problems inherent in biological discoveries, e.g., cloning? to assist the young homemaker to cope more realistically with problems faced in the early stages of the family life cycle? to deal with the "uniqueness" of one-parent families? to meet **realistically** the needs of the indigents? The list can be multiplied many-fold. While these discoveries did not emanate from the profession itself, they are significant as we determine what service home economics must render to people. Perhaps the most important question that confronts home economics for the future is: What will be the channel by which we effect the change that will produce the most self-fulfilling life for people within the smaller setting of group and family living, and in the larger setting of the international community?

*Gwendolyn Newkirk,*  
Chairman, Department of  
Education and Family Resources  
College of Home Economics  
University of Nebraska  
at Lincoln

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New faces suggest families in stress. This focus is essential to understand clearly how the well-being of family units relates to other family attributes and potentials of its members. Membership disability, family stress, and family disability are concepts which need additional specification, elaboration, and demonstration of utility for analysis. Pertinent considerations related to internal family processes which enter the picture include the degree of commonality and/or differences in attitudes toward disabled family members, perception of personality change, family decision-making, and the presence or absence of social solidarity. The results of such analyses have import for a profession which values the family and its interrelationship with the environment and with society.

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The College of Home Economics  
Prairie View A&M College  
Prairie View, Texas

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Above: Em Riggs, California Department of Education.  
Below: William H. Marshall, University of Wisconsin-Madison.

Home economists of the future will continue to adhere to the elemental idea that if humans are to realize their potentialities they must have a home setting which assures them of a continuous reliable source of personal sustenance and nurturance; a setting which will help them to build, rebuild, and nourish the health of body, mind, and spirit; a setting which will shape values and patterns of behavior that give stability and meaning to their lives so they can function in an increasingly limited, hostile, complex, and changing world and environment. The basic mission of the home economics of the future will be that of assisting family members in shaping home environments that will assure the enhancement of the human condition and spirit. To achieve this mission renewed attention will be given to the basic nature of the field, e.g., "... study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand, with his nature as a social being . . . especially of the relation between these two factors. . . ." (1)

Clearly, the future speaks to using the family as an ecosystem as a model for curriculum development in home economics education. This framework will help us identify the reciprocal relations between family members and the man-made and natural environment. Knowledge of the effects of these relations will provide the basis for specific decisions that family members will make and implement in their everyday affairs. These decisions will be fundamental in assuring man's continued physical existence and spirit—a quality life in a viable environment.

Beatrice Paolucci  
Department of Family Ecology  
College of Human Ecology  
Michigan State University  
East Lansing, Michigan

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The following description of a course appeared in the material given to ninth grade students in order that they might select the courses in which they wanted to enroll for ninth grade. This school is located in a

medium-sized midwestern city and has a student population from middle to upper middle class homes and with substantially above the mean intellectual abilities.

**FOOD AND PEOPLE:** Food and People is designed especially for you if you have little skill in *cooking*. Units in the course include study and preparation of the following: cheese products; milk products; meats; fish; poultry; eggs; fruit; vegetables; quick breads; yeast breads; cakes and frostings; pies and pastries; and simple meals. A short survey of foreign food service concludes this (one) semester course.

Home economics needs new faces who have the courage to be bold and imaginative and are not afraid to approach the content of home economics as an intellectual as well as a practical subject. The course title, *Food and People*, gives the impression that the course will be about food, people and—one would think—culture. Yet the title does not even mask a course that is obviously about food preparation/cooking.

We must emphasize that new places for home economics surely means that the content of home economics will change in such a way that it may be quite different in those different places, including new places. We have for some years been focusing on the aged and low income. But it is more and more clear that we need to devote more attention to home economics in the new places where the retarded, the long term institutionalized, and other specialized groups are found.

William H. Marshall  
Department of Home Management  
and Family Living  
School of Family Resources  
and Consumer Sciences  
University of Wisconsin-Madison

## \*\*\*\*\* New Faces

Male speakers at state and national home economics association meetings will have to find new ways to open their remarks as the tiresome "I'm glad to see one man in the audience" becomes a fallacy. For a number of years there have been a few men on college faculties, but their presence in other home economics jobs has been rare.

## Reference

Lake Placid Conference on Home Economics. *Proceedings of Conference 1 to 10, 1899-1908*. Proceedings of the fourth annual conference, 1902. Washington, D.C.: American Home Economics Association. pp. 70-71.

Now as sex barriers surrounding the professions fall, men as well as women are finding opportunities open to them that formerly were reserved for the other sex. As home economics serves **people** and families (not just women and girls), so we can expect that professional home economists will become a normal mix of men and women in the years ahead.

The Expanded Nutrition Program of the various state Extension Services has helped to establish the para-professional as another viable "new face" on the home economics scene. This idea can be expanded so home economists in other fields of endeavor can train and work with aides, and so extend their services to more people.

### New Places

Home economists work wherever they can bring education or assistance to those who need it, so their specific places of work change in response to societal needs. The use of home economists as consumer information specialists in super markets is one example.

Home economists also should assert themselves in the legislative chambers of our country, on the local, state, and national levels. The profession is doing a fair job of supporting appropriate legislation introduced by others. Now it is time for home economics groups themselves to propose legislation that would enhance the quality of life for people.

*Helen LeB. Hilton, Dean  
College of Home Economics  
Iowa State University  
Ames, Iowa*

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Cicero said 2,000 years ago, "Thus in the beginning the world was so made that certain signs come before certain events." Today, there are prophetic signs of great significance for those who have the responsibility for home economics education. Much is being said about early childhood education, education for parenthood, ecology, metrics, legislation, energy crisis, the valuing process, family life styles, the disadvantaged, and the economically depressed areas. Each of these, the facts of life, suggests a new orientation for home

economics. What decisions need to be made regarding these current topics? There are no facile answers nor instant solutions. We do need leadership to atom break these topics, as related to home economics, then determine and assert our values in order to guide our directions in both the present and the immediate future.

Home economics has boundless scope, richness, practicalities, and technological acumen; however, we cannot afford to let our technological capabilities shape our programs. The best program, if that can be found, will require people with skill in group problem solving—processes requiring us to define our terms clearly, to evaluate evidence critically, to locate groups upon which we can compromise without losing integrity, to analyze hypotheses and to integrate them whenever possible, to think through the consequences of anticipated action, and finally to implement the soundest and finest possible program.

Because such processes require the most of our intellect and creative capacity, we ought not to dissipate our energy in trivial choices. We need to sort out our priorities, to be ever mindful of the seriousness of the issues and forces which confront us, to recognize that youth will be living through times more critical to the survival of the race than even our own, and to recognize that the new generation is less burdened by old knowledge and values than most of us.

What kind of home economist will bring about new modes of perception? And, new programs? When will it happen? Where will it happen? The facts are before us and bring inner challenge to every home economist. We cannot afford to be like the airplane pilot who announced both good and bad news to his passengers. "The bad news is that we are lost, and the good news is that we are making beautiful time."

*Em Riggs  
Education Consultant  
State Department of Education  
Sacramento, California*

\*\*\*\*\*



*Helen LeB. Hilton, Iowa State University.*



# Et Cetera

**Sue Summerville**  
Assistant Editor  
*Illinois Teacher*  
University of Illinois  
at Urbana-Champaign

## 1 + 1 = 1

Sometimes 1 plus 1 does equal 1. Maybe not for the mathematicians, but it's becoming true when two subject areas combine to provide a better and more meaningful lesson, course, or even department.

### FOOD OFTEN ENHANCES LEARNING

In Providence, Rhode Island, history became a living experience for both an American Studies class and a food management class at the high school when the two groups collaborated on an experiment. The food management class prepared foods from authentic New England colonial recipes, using colonial utensils, and the American Studies class experienced for themselves the food and eating habits they had read about in history books.

Lab-Spanish Meal was the title given to a lesson conducted by the home economics foods teacher and the foreign language teacher at the high school in Topsfield, Missouri. The two classes planned and prepared the meal comprised of Mexican foods complete with practice in conversational Spanish throughout the project.

### WHO SHOULD TEACH CONSUMER EDUCATION?

Legislation requiring consumer education for all high school students has been passed in a few states. Ironically, many legislators feel the course should be taught by the business education department rather than the home economics department. Rather than argue the point, many home economics teachers have joined forces with other departments to provide a well-rounded, useful course meaningful to today's student. A good example is Independent Living (see pages 31-40) offered at Hampden Academy in Hampden, Maine. Home economics, social studies, and business education have combined to teach consumer education.

While working on the publication, *An Annotated Bibliography for Consumer and*

*Homemaking Education*, last year, staff members here in Home Economics Education, University of Illinois, found several films and pamphlets produced in Spanish. Why couldn't a home economics teacher and a Spanish teacher combine to teach consumer education this way? The publication is available upon request and orders should be directed to: Illinois Curriculum Management Center, 1035 Outer Park Drive, Springfield, Illinois 62706.

A lot of time is spent typing, "Now is the time for all good men to come to the aid of the party," in order to increase one's speed and reduce errors. Why couldn't consumer education copy be used in a typing class? Or why not combine home economics, English, and business? Home economics could provide the information for a consumer education term paper required by an English class which would then be typed in a business class while studying the mechanical set-up of a term paper.

### NEW CURRICULUM MATERIALS IN CONSUMER EDUCATION

*Consumer Education Curriculum Modules: A Spiral-Process Approach* is the title of a new five-volume set developed at North Dakota State University via U.S. Office of Education funds. The modules are directed toward developing necessary consumer skills. These skills are involved in the processes through which information is acquired, values are explored, decisions are made, and action is taken. The modules which have been field tested nationwide are for use with grades 9-14, adult, and vocational youth groups in class and non-class settings. Lessons include ready-to-use methods and materials. Even though consumer issues change from day to day, you will be able to use the modules to help your teaching remain current. The five-volume set is \$17.75 and may be ordered by name and stock number 1780-01284 from:

**Superintendent of Documents  
Government Printing Office  
Washington, D.C. 20402.**



## INNOVATIVE TEACHING TECHNIQUES—HOME ECONOMICS

Division of Home Economics Education  
University of Illinois, Urbana-Champaign

Like other educators today, we at the University of Illinois are dedicated to improving our public schools for children, youth, and adults, to making teaching more relevant, more effective, more enjoyable. We know that students are often bored, and sometimes teachers are bored, too. We know that there are many reasons for this, and we believe that teaching techniques and materials are among them.

We are trying to help home economics teachers of youth and adults to improve their teaching effectiveness in two ways. First, in PROJECT HELLM (Home Economics Low Literacy Materials) we are producing reading materials for youth and adults who read at lower elementary levels. We think that the 20-25 million Americans in high school or beyond, who read below eighth-grade levels, deserve materials at adult interest levels which are within their reading capability. We have seen high school students who are unable to read the assigned text turn away in frustration and surly silence. They could have understood the concepts in the assignment if only the concepts had been stated in simpler, more interesting, more personal language. We want to help these students.

Second, we are trying to develop new techniques which make teaching and learning more exciting, more effective, and more fun. We are trying to help teachers individualize instruction so that students can do different things, proceed at their own pace, specialize and share. Some of our results are games, some are materials from which students can discover needed information, and some are self-teaching kits which can be used in a variety of ways.

In all of these materials, we have kept in mind the slow reader so that he may use them, too. We think that more able students need not be insulted since the concepts are the same as would be found in more sophisticated materials. After all, college graduates don't seem to require that the daily newspaper be written on 16th-grade level in order to enjoy it.

Following are brief descriptions, and an order blank for those materials now available. Others are in process.

- A. HOME ECONOMICS LOW LITERACY MATERIALS. Booklets listed are third- to fifth-grade reading level, 6 x 9 inches with stiff cover.
  - A1. **Get Lost, Extra Pounds!** Cynthia Theiss. 15 pp. Illus. A study of two women who needed to lose weight. They learn that starvation is not the way and that they can eat a balanced diet, remain healthy, and still lose ten pounds in ten weeks.
  - A4. **Who Needs Calcium?** Carolyn J. Wax. 8 pp. Includes a quiz, with key, on why we all need calcium; a chart comparing calcium needs of children and adults, pregnant and nursing women, males and females; and two exercises to relate diet to calcium needs.
  - A5. **Safety! Children at Home!** Janet Tracy. 32 pp. Illus. In three stories of preschool children, the dangers of poisoning are told with emotion and some preventive measures suggested.
  - A6. **The Nutrition Gazette.** Dianne Hamilton. 4 pp. 11 x 16-inch newspaper. Typical newspaper style dealing with the growing popularity for organic foods. Articles focus on presenting the facts, thus disclaiming the fads, concerning nutritive values of organic foods. Reliable sources of food and nutrition information are listed for students to consult regarding questionable food claims. A crossword puzzle, letters to the editor, and two supermarket ads, comparing prices of the same foods in a supermarket and a health food store, complete the publication.

- B. **SELF-TEACHING KITS.** These can be used by a single student in independent study or by a group, with or without a teacher.
- B1. **Hamburgers and You.** Janice Tronc and Judy Oppert. This kit teaches that a hamburger contains nutrients, which contain elements, which make up body cells, which constitute "body parts" which make the human body. Included are instructions for making a puzzle board with manipulable pieces, instructions to student, booklet, and answer sheet.
- B2. **Calories and You.** Carolyn J. Wax. The analogies, explanations, questions and problems presented in the kit lead the student to discover the body's need for energy, the individual differences in relation to energy needs, what calories are and where they come from, other food values in relation to calories and specific calorie needs. The student would need a set of Comparison Cards\* (not included).
- B3. **How to Use the Comparison Cards.** Janice Tronc. This kit explains, in step-by-step procedure and very simple language for slow learners, how to use the Comparison Cards of the National Dairy Council. The instructions to the student lead him to discover some nutrition information from the cards as he learns how to use them for further study. The student would need a set of Comparison Cards, not included with the kit.\*
- B4. **Let Protein Work for You.** Carolyn J. Wax. The first part of this kit uses case situations and related questions to illustrate how protein works for the body. In part two, the student classifies foods that are good protein sources into food groups and discovers what kinds of foods provide protein.
- B5. **Shopping for Protein—Calorie-wise and \$-wise.** Carolyn J. Wax. In part one of this kit, the student classifies foods as poor, good, or very good sources of protein, and discovers, in problems that follow, which foods are high in protein and low in cost and calories. In part two, the student makes food plans that are economical and that will provide him with 100 percent of his daily protein need. The student would need a set of Comparison Cards, not included with this kit.\*
- B6. **A Pattern for a Balanced Diet.** Hazel Taylor Spitze. This kit contains instructions for making a jig-saw type puzzle with 72 pieces, in five shapes, each representing a food. To work the puzzle, a student selects any 14 pieces that will fit the 10 x 12-inch board. The student times himself to see how long it takes to get a "fit" on the board, then writes down the foods that made it work, on the sheet provided, and without using any of the same pieces, works it again. After repeating this procedure four times, he discovers that the only pieces he has left are foods which do not help "balance" a diet. Then the foods on the sheet are categorized by type and totaled. The student discovers that every time the puzzle "works" there is a pattern of four pieces representing milk, cheese, ice cream, etc.; four pieces of a different shape representing bread or cereal; four of another shape representing fruits and vegetables; and two of a fourth shape representing protein foods like meat, eggs, peanut butter, beans, etc. They are able, by the shape of the pieces, to see which foods can substitute for which other in the diet. There is no mention of the "Basic Four" although this is the pattern they discover. Neither is there any mention of meals. An accompanying leaflet provides questions for the student to answer and suggests that other foods may be added to this "balanced" diet to provide the needed calories and suit individual tastes.

\*Comparison Cards may be obtained from National Dairy Council, 111 North Canal Street, Chicago, Illinois. Approximately \$3.50.



C. **GAMES AND SIMULATIONS.** (Most of our games and simulations are still in process but some should be available soon. The one below is ready for distribution and tryout.)

C1. **Nutrition Insurance.** Judith Oppert. A set of "insurance policies" for health. Some students may represent insurance agents and try to "sell" their policy to other students. Each competes with the other as they try to make theirs sound best. Each student "customer" could be given a set amount of calories with which to "buy" his choice of policies. "Premiums" consist of food choices which provide the needed nutrients to insure against the disorder. One of the learnings students discover as they contemplate the various premiums is that some foods pay the premium for several policies. Policies include: goiter insurance, nervousness insurance, diseased bones and teeth insurance, iron-deficiency anemia insurance, cell separation insurance, overweight insurance, underweight insurance, and wearing out insurance. An accompanying leaflet suggests some possible uses.

D. **REFERENCE MATERIALS.** (The materials below are designed to use with "discovery" techniques of instruction and are suitable for slow as well as fast learners.)

- D1. **Inside Information.** Carolyn J. Wax. "Inside Information" is basic nutrition information in very simple language about 11 nutrients that answer such questions as (in the case of calcium): What is calcium? Why do we need calcium? What happens if you do not get enough calcium? Who needs calcium? The information is printed so that it can be cut out and pasted on 3 x 5 cards to be filed, or to be put in the "Building Blocks of Food." (See *Illinois Teacher*, Vol. XV, No. 3, Inside Information.) Color keying with Comparison Cards is suggested. An accompanying leaflet suggests some possible ways to use the "Inside Information" in teaching.
- D2. **Bibliography of Low Reading Level Materials in Consumer Education.** Gail VanderJagt. This is an extensive, annotated bibliography of materials available at elementary reading levels. It is included in *Illinois Teacher*, Vol. XV, No. 2.
- D3. **Nutritive Values of Common Foods in Percent of RDA.** (The "Percent" Charts.) Computations were made by Gail VanderJagt. One hundred and seventy-four foods have been taken from USDA Home and Garden Bulletin No. 72, and translated into percent of RDA for calories and eight nutrients, using as the 100 percent reference the woman age 22-35. The foods are grouped as follows and alphabetized within groups: Milk and milk products; meats and eggs; vegetables; fruits; cereals; breads, cakes, and pies; other sweets; fats and oils; and miscellaneous. The charts may be utilized in many games, simulations, learning quizzes, self-teaching kits, etc. An accompanying leaflet suggests some possibilities.
- D4. **Approximate Nutritive Values of Common Foods.** (The "X" Charts.) Computations were made by Gail VanderJagt. These charts are the same as above, except that instead of numbers showing exact percents, values are shown with X's, each of which represented approximately ten percent. Younger children and slower learners might more easily add ten X's to reach the optimum 100 percent than they could add actual figures. Some accuracy is lost in the rounding, of course. Nevertheless, anyone can see at a glance that the more X's they see opposite a food, the more nutritive value it has. An accompanying leaflet suggests some possible uses.



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Please indicate how many of each item you wish to order in the blank provided. Send order with remittance (payable to the University of Illinois) to:

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A4. Who Needs Calcium?	.25	_____	_____
A5. Safety! Children at Home!	.25	_____	_____
A6. The Nutrition Gazette	.25	_____	_____
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 <i>C. Games and Simulations</i>			
C1. Nutrition Insurance (Rev. 10/1/72)	1.00	_____	_____
 <i>D. Reference Materials</i>			
D1. Inside Information	1.00	_____	_____
D2. Bibliography of Low Reading Level Materials in Consumer Education (Available as back issue of <i>Illinois Teacher</i> XV, 2)	1.00	_____	_____
D3. Nutritive Values of Common Foods in Percent of RDA	1.00	_____	_____
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## CONSUMER EDUCATION

### New Materials Available

The materials listed below were prepared as a cooperative project funded partially by *Illinois Teacher*, but primarily by the Adult Basic Education Division of the Illinois Office of the Superintendent of Public Instruction. The Adult Basic Education Division distributed their copies to their constituency and gave *Illinois Teacher* permission to distribute the remaining ones to interested persons at a handling charge to cover the latter's costs. So—while they last—you may benefit from this cooperative effort.

1. *Rate Your Credit*, by Alice Wiese

\$2.00

This is a two-part package to teach the components of a credit rating. The first is a self teaching kit with a scoring device through which the learner scores himself on several factors (e.g., age, income, employment) and discovers whether his total score makes him a suitable credit risk. The second part is a game for two or more in which the object is to improve the factors and become able to secure credit. Reading level is low. Suitable for youth and adults of varying ability levels, including the slower students.



2. *Annotated Bibliography of Games and Simulations in Consumer Education, 1973*, by Gwen Blucker, Graduate Assistant, Home Economics Education Division, University of Illinois. 97 pp. This work contains a three-page evaluation for each of 32 published games and simulations related to various aspects of consumer education. The evaluation includes questions in three areas: educational possibilities, student interest, and physical characteristics. Sample questions: Is the information accurate? Does winning require knowledge rather than luck? Is the game flexible for different age groups and ability levels? Is the game easy to store? Source, price, subject matter, reading level, etc. are given.

\$1.50





3. *Fill Your Grocery Cart With Nutrition* by Alice Wiese \$6.95  
 This food buying game including a colorful board and cards representing the supermarket grocery cart, foods, etc., teaches principles related to consumer education and nutrition. Reading level is low. Suitable for youth and adults of varying ability levels including the slower learners.

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# ILLINOIS TEACHER OF HOME ECONOMICS

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## NEW FACES AND PLACES FOR HOME ECONOMICS

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### In Memoriam — Dr. Mary E. Mather

The *Illinois Teacher* is sad to report the death on September 9, 1974 of Dr. Mary E. Mather. Her courage during a long fight with cancer was an inspiration to all who knew her. Her extended tenure at the University of Illinois included service as Chairman of the Home Economics Education Division, Co-Editor of *Illinois Teacher*, and membership on many important committees. The American Home Economics Association and other professional organizations also benefited from her leadership and service.

Those wishing to honor her may send contributions to the University of Illinois Foundation — Mary E. Mather Fund, 224 Illini Union, Urbana, Illinois 61801, or directly to the *Illinois Teacher*.

### FOREWORD

For this issue of *Illinois Teacher* we are indebted to the Pennsylvania State University, Department of Home Economics Education, and especially to Dr. Twyla Shear who served as guest Editor in collecting the articles to be included. The authors are, or have been staff or students at Pennsylvania State.

We hope there is something for everyone. The articles by Ricker and Weis, McCall, Dittman, Parkhurst and Munson offer practical suggestions for use in the classroom. Elizabeth Ray provides food for thought in regard to values, and John Bellanti challenges us with some thoughts on teachers as persons.

Andrews and Leamer describe a program of unified arts in the middle schools, and Charlotte Farris suggests one procedure for providing leadership in problem solving. Susan Weis directs our attention to sexism and Home Economics Education, and Wallace and Dewald speak to us about Family Planning and population.

The final section of this issue is the first "installment" of Judy Oppert's correspondence course on Metrics.

As usual, we invite your comments.

Hazel Taylor Spitze  
Editor

### **CORRECTION!**

Unfortunately, the photographs of Dr. Mary Ruth Swope and Dr. Lois A. Lund were inadvertently switched in *Illinois Teacher* Volume XVIII, No. 1, pages 5 & 6. We are sorry for any confusion that was created for our readers and apologize to Dr. Swope and Dr. Lund.



# TEACHERS, VALUES AND THE PRESS OF DAILY LIFE

BY Elizabeth M. Ray,  
*Professor, Home Economics Education, University Park, Pennsylvania*

It can hardly be denied that one persistent consuming goal for individuals and for mankind is to survive. All endeavors and all expressions of need, interest, attitude and opinion can be assessed as being more or less related to one's continuous attempt to maintain the equilibrium required to stay alive and, psychologically speaking, in charge of one's own life.

Psychologically healthy people have a tendency to think of life as going on indefinitely in a fairly stable physical and social environment. Such individuals probably fit d'Ornellas'<sup>1</sup> paradigm of optimism, objectivity and trust. Such persons find it convenient and natural to fall into cooperative ventures with family and peers. Persons tending toward lesser psychological health, on the other hand, tend to assume the pessimistic, more aggressive stance at the outset and devote their energies to collecting subjective evidence to confirm their worst suspicions.

In discussing these general tendencies of people d'Ornellas points out that surgical teams and astronaut crews represent two examples of cases where cooperation, objectivity and optimism are absolutely essential. I believe there can be little doubt that the educator role falls fully within the parameters set for either of the two previously mentioned enterprises. Although not mentioned by the author cited I would point to a common denominator, perhaps the most essential requirement for each: competence.

In Maslow's<sup>2</sup> studies of relatively healthy people he repeatedly describes subjects as altruistic and humanitarian, as compassionate and unselfish, loving the young and protective of the weak. Invariably these are characteristics sought in persons who are idealized as the teachers of our children. Yet these qualities are not comfortably attributed to self. By and large teachers think of themselves as the mere mortals they are and for them the moments of transcendence are limited indeed. Great teachers do occasionally achieve sainthood, but never in their own experience of living. Unfortunately, those who have made a profession of dissecting teachers in the process of evaluating them appear to have overlooked these facts.

We exist in stressful times. The physical and social environment is not very stable. Certainly the political atmosphere is less than reassuring. Economic conditions are reflected daily in what we experience in the community, the school and in our profession. We go home to escape these stresses only to confront another layer of personal and family pressures which arise from the same chaotic sources.

The outwardly optimistic, objective, trusting person is caught in a death grip by the pessimistic, subjectively distrusting person inside who senses that competition, aggression and open warfare may yet be required for survival. The loving, compassionate, unselfish protector of the weak may be ill-prepared to cope with the militant

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<sup>1</sup>d'Ornellas, Cassian M. "The Morality of Survival" in *Journal of Human Relations*, Vol. 18, No. 3, 1970, pp 1009-18.

<sup>2</sup>Maslow, Abraham, *The Farther Reaches of Human Nature*, New York: The Viking Press Publishers, 1971.

self-serving students, teachers, and administrators bound to be found in any school environment. Maxine Greene in *Teacher as Stranger* comments that:

. . . It is difficult to give up the hope that human beings know intuitively and absolutely what is right and what is good. It is particularly difficult for the teacher to give up the conviction that he possesses some independent faculty enabling him to know under all circumstances what he ought to do.<sup>3</sup>

Teachers are, first and foremost, humans who experience the real world as intensely as do learners, parents, school board members and taxpayers. A significant proportion of any given teaching staff is, in fact, likely to be represented in one or possibly all of the role incumbencies listed. For example a former student called me recently to discuss a complex professional decision. Her position as Elementary Supervisor for Home Economics was wiped out by the school board during a recent budget crisis. After having spent years building an outstanding program to provide supplementary services to elementary teachers, my friend must now accept a non-negotiable reassignment to a difficult junior high school where she will become a regular classroom teacher or take a year's leave of absence, and a chance that there will be a different opening when she returns. The option to resign and seek other employment in mid-summer of a year when the job market is tight emerges as a very unsettling alternative, indeed.

One expects that Maxine Greene referred in her comment to instructionally relevant decisions, but surely the mature, successful home economics teacher/supervisor confidently expects to know what to do when confronted with a personal/professional decision such as that described. Though my friend won't know as I write this what the decision will be, I am as confident as one can be about another, that despite the anguish,

the optimistic, objective side will dominate. Her commitment to that program cannot be taken away by a budget cut.

In *The Goodly Fellowship*, Mary Ellen Chase's<sup>4</sup> marvelous account of her life in teaching, there is an entertaining tale of her first reluctant day as a teacher—a calling her father had unceremoniously forced upon her because of his conviction that each of his daughters should teach in a country school before finishing college. She relates as follows:

. . . I think in fact that my disgraceful record in college mathematics, together with a somewhat chimerical love affair, decided my father that I needed to get down to what he termed the brass tacks of life. . .

. . . It was on a cold, bleak foggy Maine morning in April 1906 that my father deposited me bag and baggage on the steps of the Bucks Harbor School house and left me to sink, survive or perish. My first morning in my first school was dedicated to theory and practice of the survival of the fittest. The spring was a late one and certain boys of sixteen or older, who otherwise might have been at sea were at school for a season, ostensibly to learn, actually to discover of what stuff the new teacher was made. . .

Had my father himself been constructed of less flexible stuff, could I have been sure of receiving understanding and sympathy at home instead of disappointment and contempt, I should then and there have run for cover, leaving the Bucks Harbor school to whatever fate awaited it.

But the fear of returning home in defeat was far more terrible than the fear of staying where I was . . .

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<sup>3</sup>Greene, Maxine, *Teacher As Stranger*, Belmont, California: Wadsworth Publishing Company. 1973, p. 237.

<sup>4</sup>Chase, Mary Ellen, *The Goodly Fellowship*, New York: MacMillan Company, 1939, pp. 34-39.

The school at Buck's Harbor demanded of me more mental and physical agility than mere knowledge. I had forty-nine children of all ages from five to sixteen. When I had once sorted them out in accordance with age and progress, I found myself with twenty-nine classes a day to teach. The hours from nine until four, with fifteen minutes each morning and afternoon for recess, contained all told in minutes but three hundred and thirty. This resulted even by my poor arithmetic in a maximum of eleven minutes for each class, or to be more accurate, in ten, since the classes must move in order from their seats to the bench before my desk.

... it was dangerous to lose one's head for a fraction of a second. On and on the minutes raced with questions to be quickly put or as quickly answered. There was not time even for self pity, let alone self indulgence. For eleven weeks the stark necessity of the Bucks Harbor school held me in a never-loosened vise. When they were over, I was a different person.

Throughout a long and beautifully chaotic professional career, this great author, teacher and humane person was more than ordinarily determined to pursue goals of her own. The goals she fought to achieve were almost invariably more original, more demanding and more magnificent than any her many mentors and exasperated administrators ever devised. And all this in part because people were so regularly convinced that she would surely fail.

It is apparent to me that times of stress and instability are in the eyes and experiences of the individual, for surely we can read into Mary Ellen Chase's account of her first teaching experience a description of one inadequately prepared person's misguided attempt to individualize instruction in a one room school. On that remote peninsula jutting

into the ocean off the coast of Maine, there were chaotic times. The future was uncertain. It is doubtful that Mary Ellen Chase, at that point in her life in the year 1906, could have responded civilly to the suggestion that these were idyllic days or that the peace and beauty and remoteness of this village and these untarnished innocent children would be remembered nostalgically and lovingly.

Mary Ellen Chase's determination to succeed was fully buttressed however, by her conviction that there would be only ridicule and contempt awaiting if she failed. The key to her behavior was that failure was not compatible with her perception of herself even if it was a part of her father's view of her.

Gellerman in *Motivation and Productivity* proposes that health, safety, status and all the other goals that supposedly cause behavior are only paraphernalia for attaining the ultimate purpose of any individual which is to be *himself*. He goes on to say this:

The ultimate motivation is to make the self concept real—to live in a manner that is appropriate to one's preferred rank, and to be rewarded in a manner that reflects one's estimate of his own abilities. Thus we are in perpetual pursuit of whatever we regard as our deserved role, trying to make our subjective ideas about ourselves into objective truths. When our experiences seem to be confirming those ideas we are likely to feel that life is good and the world itself is just—but when we are denied the kinds of experiences to which we feel entitled we are likely to suspect that something is drastically wrong with the world.<sup>5</sup>

Extrapolations from this frame of reference coincide surprisingly well with Hartman's axiom which states: "Anything is good (or valuable) if it is what or is as it is supposed to be."<sup>6</sup> This leads me to suggest that teachers for whom personal and professional

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<sup>5</sup>Gellerman, Saul W. *Motivation and Productivity*, New York: Vail-Ballou Press, 1963, p. 290.

<sup>6</sup>Hartman, Robert S., "A Logical Definition of Value" in *Journal of Philosophy*, Vol XLVII, No. 13, 1951, p. 413.



responsibilities are satisfying and enriching will tend to view the world around them with interest, objectivity and optimism, while for those whose personal and teaching experiences have been abortive and discouraging, the world appears to be a chaotic mess where people are not to be trusted, where the future appears to be uncertain, where not much of worth is expected to result from their endeavors.

The concept of identity appears to be highly relevant in this context. This is the notion that an individual moves into a pattern of habits and behaviors which is predictably real for both that person and those who experience the person. Charlotte Buhler<sup>7</sup> has suggested that one's identity as it exists at any particular point in time can be viewed as this individual's *value potential* or *insight potential*. This is described as the range of values an individual is functionally able to encompass in terms of awareness, appreciation acceptance and activation. Buhler hypothesizes that an individual whose basic

tendencies show a good equilibrium and are well integrated has the greatest possible value potential while an individual whose basic tendencies are in disequilibrium and not integrated has a limited value potential.

In summary, I would propose that peoples of all ages and stages of development across time and culture have experienced periods of stress and chaos; therefore, we are probably not at such a unique point in history as we tend to believe. The constructive intent of this discussion has been to suggest that equilibrium as well as chaos is to be found within the individual and that one's potential for achieving positive goals is enhanced as one is able to sustain a fairly balanced inner environment, one which can be depended on as a base to return to following times of anxiety and stress. Everyone reaches the limits of endurance some time, but only a relative few withdraw from life or society as a result. Most people pick up the pieces and get organized for the next fray. This capacity in teachers is highly prized.

See page 39 for special offer with time limitation.

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<sup>7</sup> Buhler, Charlotte, *Values in Psychotherapy*, New York: The Free Press of Glencoe, MacMillan Co., 1962.

As I began to plan this article, my thoughts drifted to a passage I read in a book about pottery when I was learning to work with clay.

A wonderful material, clay probably was the first thing man turned to for creating. It took a thousand centuries for forces of air and water working on granite rock to form the clay you work with.<sup>1</sup>

My involvement in working with clay has enabled me to view the teaching-learning process from a new perspective and has helped me to understand the teaching rôle as a continually changing, flowing, dynamic process. It might be helpful to examine this process in greater detail. Let us begin by taking a closer look at ourselves, teachers as persons:

Did you ever stop and consider how many millions of years it took to create you?

I find this a fruitful question. What are your thoughts and feelings when you begin to contemplate this question? Are they similar to those listed below?

I'm a very important person.  
My life did not begin with my birth,  
but long before that.  
I'm more special than I realize.  
This allows me to look at my  
existence from a different time  
and space perspective.  
I am very unique.  
There are many things about me  
that I have not considered  
before.  
Maybe I have taken part of my  
uniqueness for granted. If that is  
true for me, it may be true about  
how I experience others. Have I  
taken others for granted?

Your thoughts may put you into an existential framework, or perhaps you may become more aware of your own *being* and *becoming*—which may have gone by unnoticed by everyone, including you. Some of your answers to the above question may be very obvious, in fact too obvious. Often it is the obvious which is overlooked and needs to be brought to our awareness. A recent best seller calls our attention to the obvious in a unique way:<sup>2</sup>

"You must begin by knowing that you have already arrived." Bach's statement focuses our awareness on the specialness of self. Other

## TEACHERS AS PERSONS

By John Bellanti, *Assistant Professor,  
Home Economics Education,  
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writers have helped us do the same:

The water continually flowed and flowed and yet it was always there; it was always the same and yet at every moment it was new.<sup>3</sup>

Hesse, although he was symbolizing life, also gave us one of the best analogies for understanding a person. This analogy centers our awareness on the self as a flowing, dynamic being, continually in the process of becoming. Carl Rogers<sup>4</sup> and Abraham Maslow<sup>5</sup> have also described the person in dynamic terms in their concepts of the "fully functioning person" and the "self-actualizing person."

It is this flow of self, this ever-changing personal force that you, the teacher, bring to

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<sup>1</sup>Kenney, John B. *The Complete Book of Pottery Making*, New York: Chilton Books, 1949, p. v.

<sup>2</sup>Bach, Richard, *Jonathan Livingston Seagull*. New York: The MacMillan Company, 1973, p. 81.

<sup>3</sup>Hesse, Herman, *Siddhartha*. New York: New Directions, 1951, p. 136.

<sup>4</sup>Rogers, Carl R. *Freedom to Learn*. Columbus: Merrill Publishing Co., 1969.

<sup>5</sup>Maslow, A. *The Farther Reaches of Human Nature*. New York: Viking Press, 1971.

your classroom. Sometimes one's life force enters the classroom like a pebble which has been dropped into a still pond. The ripples of energy begin and continue to move outward touching each student in different ways. Yet this flow, the flow of one's life energy at work, is impossible to objectify and to fully encounter; yet not to encounter it, not to experience this mystical process, is to reduce one's effectiveness as a "facilitator of learning."

Once a teacher is in touch with his/her own life energy, or as Mary Caroline Richards<sup>6</sup> writes, "the seed forces in ourselves," he or she begins to experience more fully the constant flowing and merging of each student's life energy into another. The result of this process is the evolution of a living organism with a life of its own, or to put another way:

The teacher works as an artist with the particular student or group, the particular situation, his own vision and his insight into the hungers of those in his charge. Every class becomes a composition producing its unique revelations and tone. Simple or complex, harmonious or dissonant, galactic or linear, muted or brassy, teacher and students alike may awaken to the artistic processes at work.<sup>7</sup>

The pre-service teachers who make up the majority of my students are sometimes surprised when they are told, "You are a part of this course; this course is now you." The course becomes a "shared journey" which each person or class pursues on her or their own time schedule. Each person or class has its unique sound; but, how does a teacher hear this sound or tune to his/her students on this level? Carl Rogers in *Freedom to Learn* described this process in part as the act of empathic listening: listening to the "silent

scream," a conscious attending to that part of the person which demands, though unspoken, to be heard. Listening in this sense is listening with one's whole self—holistically listening to the totality of the person. When a helper—therapist, teacher, or friend—listens in this manner, change or learning begins to occur. When that part of self, that center is heard, there is a tremendous release of energy, and one experiences the person's becoming more alive. When the life force of the person, which has been encapsulated in an "invisible straitjacket" is freed, a tremendous release or flow of energy follows and the person begins to experience a new awakening, a renaissance.

The last time I shared in such an experience occurred a few weeks ago when a former student walked into my office, distressed and full of anger because a teacher had given her a lower grade than she believed she deserved. The grade was a rating of her listening skills. Since the person she was listening to, the speaker, rated her much higher than her teacher, who only rated a tape of her conversation, she believed her anger was justified. It never occurred to the student that perhaps her "true score" might be somewhere between the speaker's rating and her teacher's rating. In this student's mind the speaker's rating was right and the teacher's rating was wrong. Together we explored her feelings; you will notice as you read through the transcript the core of the message she was trying to communicate. It was not until the end of the transcript that this message was made explicit by her with full awareness:<sup>8</sup>

<p><b>T.</b> It's more than that. What else are you feeling?</p>	<p><b>S.</b> It makes me mad.</p> <p><b>S.</b> . . . rejected. . . hurt I'm reminded when I failed fifth grade I'm dumb. . . I'm humiliated.</p>
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<sup>6</sup> Richards, Mary Caroline. *The Crossing Point: Selected Talks and Writings*. Middletown: Wesleyan University Press, 1973.

<sup>7</sup> Richards, Mary Caroline. *Centering*. Middletown: Wesleyan University Press, 1964, p. 41.

<sup>8</sup> Although the words reflect my training as a psychologist, any teacher who affirms the uniqueness of her students and who is committed to helping them express their uniqueness can be an effective listener in different ways.



T. Try to go deeper. S. I'm bleeding. I feel like I'm dying.

T. Can you say that louder? S. I'm DYING (a little louder)

T. Try going deeper. S. I am Dead. (At the same time nodding head yes.)

T. Can you say I am dead? S. I can't.

At this time the student has expressed her message, but she does not hear it.

T. Say I am nothing. S. I am nothing.

T. Would you say that louder! S. I CAN'T.

It would be easy at this point to say to the student, "Sure you can," rather than unconditionally trust the student and her need for help.

T. Can you say I am NO thing. S. I am no THING (This is different than T. requested).

T. Say that again, louder. S. I am no. . . (she hesitates but does not say the word.)

T. This time say I am . . . NO! S. I am . . . NO!

T. This time try to shout it. S. I am. . . (stops, becomes very pensive; she hears her message.)

S. I AM (A smile breaks across her face.)

S. I AM, DAMN IT! I AM!

If the reader reviews the student's comments he can see first the unspoken, then the spoken but not heard words: "I am," "I am," "I am," etc. Although it is difficult to recapture in writing the depths of emotion experienced by the teacher and student in this interchange, it was profound. The "silent scream" was, "I am a person, not a thing, and any interaction which denies my worth

infuriates me." How many times does it happen in a classroom that the life of a person (teacher or student) has been blocked from expression?

Elizabeth O'Connor expressed the importance of the last point in a different way:

Eric Hoffer tells a story about a Bavarian peasant woman who cared for him after his mother died and during the years that he was blind: "And this woman, this Martha took care of me. She was a big woman, with a small head. And this woman, this Martha, must have really loved me, because those eight years of blindness are in my mind as a happy time.

I remember a lot of talk and laughter. I must have talked a great deal, because Martha used to say again and again, "you remember you said this and you remember you said that. . ." She remembered everything I said and all my life I've had the feeling that what I think and what I say are worth remembering. She gave me that."

. . . Very few of us have had a listening, seeing person in our lives. We do not hear what others—not even our children—are saying because we, ourselves, have had no one to hear us. We do not have the feeling that what we think or what we say is important.<sup>9</sup>

This writer is not trying to suggest that being in tune with the unique flow of self, the life force of a class, and being an empathic listener will guarantee that learning will take place in a classroom. In the last ten years there is a substantial body of empirical evidence to suggest that these conditions are necessary but not sufficient for learning. What is suggested is that when a teacher interacts with her students on this level, when she establishes an open enduring contact with her students and when their life's energies are allowed to flow into each other's life space, she not only facilitates interchange but inner change, and it is inner change that increases the probability that lasting learnings will occur.

<sup>9</sup> O'Connor, Elizabeth. *The Eighth Day of Creation*. Waco: Word Books, 1971, pp. 18-19.

# STRATEGIES' FOR SOCIAL AND AFFECTIVE DIMENSIONS OF THE CLASSROOM

edited by

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Learning in the context of a society of the classroom creates experiences which can highlight or depress the content presented. Each learner is influenced by the presence of other learners. The unique group formed by the individuals in any classroom is an additional dimension for the interactive process of instruction. Focusing upon the processes of the individual and group development becomes the business of education. Yet, such a focus is sometimes submerged in the daily experiences of the classroom.

Sociometric techniques such as those set forth by Arny<sup>2</sup> and Gorman,<sup>3</sup> allow for exploration and assessment of the interpersonal context of the learning situation. Additionally, selected evaluative techniques, adaptable to various content areas of home economics, provide the teacher and learners with experiences to examine and assess both process and content dimensions of the classroom.

The members of an undergraduate class in educational measurement at The Pennsylvania State University used the following strategies in their student teaching situations. These strategies are modifications of existing sociometric techniques, value clarification exercises and attitudinal devices. The strategies presented range from sociometry to activities which provide arenas for the learner to explore

and assess his or her status in a group while attending to a selected content area. Other techniques provide opportunities for learners to air their opinions on issues to clarify values.

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## TITLE: Where Do You Stand?

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**Directions:** Devise a gameboard on the floor of the classroom with large squares of cardboard or squares defined by masking tape lines. The gameboard should include enough squares to allow students to move about and stand in a square which best represents their reactions. The following pattern of squares may be used.

Strongly Agree	Agree	Disagree	Strongly Disagree
Agree	Disagree	Strongly Disagree	Strongly Agree
Disagree	Strongly Disagree	Strongly Agree	Agree
Strongly Disagree	Strongly Agree	Agree	Disagree

Students are presented orally with a series of statements and stand in a square on the gameboard which best represents each student's reaction to each statement. Color-coding the squares facilitates the observation of student reactions.

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<sup>1</sup>Members of the undergraduate class who developed or adapted strategies are Pam Eaton, Susan Kennedy, Denise Labuda, Willie Polasko, Elaine Rathfon, Linda Ricker, Donna Sanders, Marcia Schurer, Ruth Shaffer, Brenda Smith, Joyce Steen, Linda Tatliba, and Maryanne Torok.

<sup>2</sup>Arny, Clara Brown. **Evaluation in Home Economics**. New York: Appleton-Century-Crofts, 1953.

<sup>3</sup>Gorman, Alfred H. **Teachers and Learners: The Interactive Process of Education**, 2nd edition. Boston: Allyn and Bacon, 1974.

Statements like the following may be used:

1. My role in a group is usually that of "tension reliever."
2. I am usually the one in a group to initiate new ideas.
3. I prefer individualized work over group work because I rarely agree with my classmates.
4. I usually go along with whatever the group decides because I like to be agreeable.
5. When I am in a group I spend my time socializing.

After a statement is read and the learners take their stands, a brief discussion of roles of individuals in groups may be held.

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### **TITLE: Opinion Stand**

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**Directions:** This activity uses the gameboard on the classroom floor described in "Where Do You Stand?" Learners are presented with a value laden statement and asked to move to the square on the gameboard which best expresses their opinion regarding the statement. If differences in opinions are evident, small informal debates are held. After debating, the statement is repeated and the learners are allowed to revise their opinions and move to another square.

Examples of statements that could be used include,

1. A woman is not capable of holding down a man's job.
2. Abortion should not be legalized.
3. A husband should share housework with a wife.
4. Successful marriages need children.
5. An unmarried individual should not be allowed to adopt a child.

### **Variation 1:**

The same strategy may be used to air values held by learners relevant to other subject matter areas such as housing. Statements on housing values may include,

1. It is important to me that my home be attractive.

2. A comfortable home is important to me.
3. I really need space in my home to entertain my guests.
4. I need a place at home to get away from people and be alone.
5. I cannot tolerate mess and disorder in my room.

### **Variation 2:**

Teachers may find this strategy can be adapted to explore student expectations and values regarding classroom learning activities. Posing statements such as those below allow learners to express opinions on classroom activities and provide feedback to the teacher.

1. I like to have guest speakers come to my classes.
2. I enjoy working in small groups.
3. I prefer independent assignments.
4. I learn best when I can work in a group.
5. I like to speak up in class.

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### **TITLE: Pin the Most Likely Person**

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**Directions:** A box is passed around the room which contains slips of paper with phrases such as:

Does things in a group  
Gets along well with others  
Is the most fun to be with  
Has a good mind  
Has the most dates

Each student draws a slip from the box until the box is empty. Without talking each learner goes to the classmate who best represents the characteristic described on the slip of paper and pins the paper to the selected classmate's back. A person may be pinned by more than one slip of paper. A learner may pin the paper on him or herself. The students are given a sheet which lists all the characteristics contained on the paper slips. Each learner then checks off the statements which the learner believes have been pinned on his or her back. The paper slips are removed from the learner's back and marked with an asterisk on the sheet. The learner is provided with an opportunity to compare the characteristics selected by self and peers and to write a brief reaction



statement to the comparison. The teacher collects the papers after making predictions on the learners pinned by each characteristic.

### TITLE: Me, Myself and I

**Directions:** Read each statement. If it describes you, put a check in the column headed "Like Me." If the statement does not describe you, put a check in the column headed "Unlike Me."

Like Me	Unlike Me
---------	-----------

- |       |       |  |
|-------|-------|--|
| _____ | _____ | 1. I am friendly with most people.         |
| _____ | _____ | 2. I am a slow student.                    |
| _____ | _____ | 3. I like to look neat and clean.          |
| _____ | _____ | 4. I think I understand myself.            |
| _____ | _____ | 5. I make a good impression on people.     |
| _____ | _____ | 6. I do a lot of work to help out at home. |
| _____ | _____ | 7. I don't like to be alone.               |
| _____ | _____ | 8. I am generally happy.                   |
| _____ | _____ | 9. I get sick often.                       |
| _____ | _____ | 10. I have lots of problems.               |
| _____ | _____ | 11. I have lots of friends.                |
| _____ | _____ | 12. I like myself.                         |

Statements can be added or deleted depending on the target audience of learners.

### TITLE: Who Am I?

**Directions:** Learners are asked to give twenty statements to complete the sentence, "I am \_\_\_\_\_." Each response should be a characteristic of one's self that describes personality, appearance, self-image, likes and dislikes, and memberships in organizations. The results can be used by the teacher to gain insights into how each learner perceives him or herself. The results provide data for teachers to evaluate and predict attitudes, behaviors and qualities of student interaction.

### TITLE: How Well Do I Know My Classmates?

**Directions:** The learner is asked to place a check in the column which best describes how well he or she knows each classmate in the form following.

Learners	Know Well	Know Slightly	Don't Know	Would Like to Know Better
Susan Kennedy				
Joyce Steen				
Marcia Schurer				
Elaine Rathfon				
Willie Polasko				
Donna Sanders				
Linda Tataliba				
Pam Eaton				
Linda Ricker				
Brenda Smith				
Maryanne Torok				
Denise Labuda				
Ruth Shaffer				

After completing the checklist, review each classmate's name and identify,

1. Which classmates are your close friends?
2. With which classmates do you prefer not to work?

The chart and questions may be completed several times during a course to determine any changes and progress toward the social objectives of a class.

### TITLE: Group Participation/Helpfulness Rating Scale

**Directions:** Participation in group activities and helpfulness to other students are two important goals of this course. Using a scale with a 3 meaning *always*, a 2 meaning *some of the time*, and a 1 meaning *never*, evaluate each learner on the extent he or she has participated in group activities and the extent of his or her helpfulness in class during this week.

As an overall or final evaluation, each student is asked to respond to the following statements:

1. Evaluate your own group participation and helpfulness over these past four weeks. Explain and give examples to support your evaluation.
2. Who was the one person who was *most helpful* every week?
3. Which person do you consider to have been the *least helpful* over these four weeks?

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## TITLE: A Who's Who Device

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**Directions:** Several questions are presented below which could be used as items for a "Who's Who" instrument. Administering the instrument periodically would help the teacher to keep track of changes which may occur over time.

1. Which person would you most like to work with in planning a bulletin board?
2. Which classmate would you choose as a companion on a two-week trip?
3. Which classmate would you

choose as your co-chairman for the Friendship Committee?

4. Which classmate would you most want as your group discussion leader?
5. In class, who would you want as your best friend?
6. Who is your best friend in class?
7. Who do you know the least in class?
8. Which classmate is most helpful to you?
9. Who in class would you most like to talk with?

Learners	Group Participation				Helpfulness to Others				Comments
	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	
Susan Kennedy									
Joyce Steen									
Marcia Schurer									
Elaine Rathfon									
Willie Polasko									
Donna Sanders									
Linda Tataliba									
Pam Eaton									
Linda Ricker									
Brenda Smith									
Maryanne Torok									
Denise Labuda									
Ruth Shaffer									



# TOCK: STRENGTHENING CONSUMER EDUCATION

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Home economists accept generally, and insist often, that consumer education belongs in the domain of home economics. If so, then home economics teachers need to shift emphasis toward education for consumers by broadening the scope of consumer problems in the curriculum. Consumer concepts integrated with foods, clothing, and housing studies, as reported by teachers, are not adequate to the task.

A recent study by Davis<sup>1</sup> indicated that social studies teachers generally are more consumer oriented than home economics, business and office, or distributive education teachers. For these teachers the priority in emphasis varied, with home economics teachers' priority topic being labeling. This suggests that if home economists are to fill their perceived role, they must focus more directly upon a wider range of consumer concepts in their curriculums and course offerings.

One accepted method for beginning is to pre-test what students know presently, thereby establishing a basis for beginning study. Serving that purpose is the Test of Consumer Knowledge (TOCK)<sup>2</sup> a paper and pencil test for determining knowledge of consumer concepts at various developmental levels. The TOCK is based on the concepts identified as important for the development of competent consumers

in *Suggested Guidelines for Consumer Education: Kindergarten Through Twelve*.<sup>3</sup> The publication was developed by the President's Committee on Consumer Interests for use in the planning of consumer education programs in rural, suburban, or urban educational systems.

The concepts in *Suggested Guidelines* are divided into four broad areas with subconcepts in each:

1. The Consumer as an Individual
  - a. personal and family consumer behavior
  - b. effects of family life
  - c. sources of aid for individuals and families
  - d. political citizenship
2. The Consumer as a Member of Society
  - a. role of consumer in the economic system
  - b. effects of the marketplace on the consumer
  - c. effects of community life
  - d. effects of political institutions
  - e. effects of social support
  - f. effects of public support
3. The Consumer's Alternatives in the Marketplace
  - a. food
  - b. clothing
  - c. housing

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<sup>1</sup> Davis, Rose Moody. "Consumer Education: Who's Teaching It," *AVA Journal*, Vol. 49:54, May, 1974.

<sup>2</sup> McCall, Charlotte L. **Development of a Test Assessing Competency in Consumer Education.** Unpublished doctoral dissertation, The Pennsylvania State University, University Park, Pennsylvania, 1973.

<sup>3</sup> **Suggested Guidelines for Consumer Education: Kindergarten Through Twelve.** Washington, DC. The President's Committee on Consumer Interests, 1970.



- d. transportation
  - e. health care and service
  - f. household furnishing and equipment
  - g. money
  - h. banking
  - i. savings
  - j. credit buying
  - k. life insurance
  - l. property, casualty, automobile insurance
  - m. investments
  - n. retirement planning
  - o. use of leisure time
  - p. estates, wills, trusts
4. The Consumer's Rights and Responsibilities
- a. consumer rights
  - b. consumer responsibilities

The test of 84 true-false statements employing a degree of certainty scale is divided like *Guidelines*, into four broad areas. Items 1-24 are concerned with The Consumer as an Individual; 25-26 with The Consumer as a Member of Society; 37-72 with Consumer Alternatives in the Marketplace; and 73-84 with Consumer's Rights and Responsibilities.

In the Process of constructing TOCK, a large number of items were written and validated for each area. Parallel tests were developed and pilot tested.

The final form of the TOCK was administered to a total of 1,256 students in grades six, nine, and twelve from populations identified as rural, suburban, and urban. Reliability of the instrument was computed to be .83 based on the total population and .50, .77, and .88 for grades six, nine, and twelve respectively. This supports the contention that it has usefulness for the purpose of determining a basis for beginning the development of relevant consumer education programs.

Scoring involves use of the degree of certainty scale, a technique used with true-false items to provide greater discrimination of what is actually known by the respondent. An item answered correctly with a high degree of certainty receives the greatest

number of points. Conversely, an item which is answered incorrectly with a high degree of certainty receives the lowest scores. The following illustrates the scoring of this technique.

A correct answer with 5 circled scores	10
A correct answer with 3 circled scores	8
A correct answer with 1 circled scores	6
An incorrect answer with 1 circled scores	4
An incorrect answer with 3 circled scores	2
An incorrect answer with 5 circled scores	0

In administering the test, one should make clear to the respondents that although each question should be answered by indicating a degree of certainty, they should not be overly concerned if many of their answers are categorized as "my best guess," since the test is designed as a device to assess present mastery of consumer concepts. The vocabulary may be difficult for some of the younger students, but, because a part of the assessment is knowledge of terminology related to consumer concepts, teachers should refrain from giving help.

Armed with the test results information, a teacher can determine concepts which need to be included in the curriculum, establish a scope and sequence, and begin to develop teaching-learning units suited to their student population.

Once the results are in and the concept outline is planned a source of lessons to start with might be HELP's<sup>4</sup> available from The American Home Economics Association. For instance, if testing indicated a need for knowledge related to the concept of banking, beginning secondary students might choose the HELP, "You Can Bank On it" or "Checking Account—A Servant to You." If the deficiency were found to be in marketing or merchandising techniques, a beginning student might use "Advertising and You." Another in the same class with some previous knowledge of the concept might use "Advertising Appeal" developed for use by students with intermediate secondary levels.

The TOCK is to assist in determining where to begin and HELP's are to assist in how to begin. It follows on p. 68-71.

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<sup>4</sup> HELP's. AHEA Sales Office, 2010 Massachusetts Avenue, NW, Washington, D.C. 20036.

# ARE YOU AN INFORMED CONSUMER?

What do you know that is thought to be helpful in your role as a consumer? This is a true-false test to find out how informed you are as a consumer.

Grade \_\_\_\_\_

Male or Female \_\_\_\_\_

Answer each question one at a time as follows:

**First**, decide whether the statement is true or false and circle either T or F. **Then**, decide how sure you are that you have circled the right answer by circling one of the numbers as described below:

- 5—quite sure
- 3—reasonably sure
- 1—my best guess

## Example

- ☒ T ☐ F ☒ 5 ☐ 3 ☐ 1    1. Diamonds cost more than imitation pearls.
- ☐ T ☒ F ☐ 5 ☒ 3 ☐ 1    2. Milk contains more caffeine than does coffee.
- ☒ T ☐ F ☐ 5 ☐ 3 ☒ 1    3. The average yearly temperature of San Francisco, Cal., is higher than that of Miami, Fla.

The first statement is marked T and 5 meaning that the person answering is quite sure that the statement is true. The second question is answered F and 3 indicating that the person answering is only reasonably sure that the statement is false. The third question is marked T and 1 meaning that the best guess is that the answer is true.

In this test, you get more points for being sure of your answers. On the other hand, if you are wrong, you lose points. The points are indicated by the number which you circle. The number you circle shows how sure you are that your answer is correct.

## CONSUMER TEST

FORM III

Be sure to circle either T or F and a number.

- |   |   |
|---|---|
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 1. There is no basis for the accusation that Advertising may cause people to buy things they cannot afford.                               |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 2. The family life cycle may change, but the needs and wants for consumer goods and services remain constant.                             |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 3. The American Pharmaceutical Association is responsible for protecting consumers against hazardous products which are not labeled.      |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 4. Conspicuous consumption is the purchasing of goods where anyone can see you.   |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 5. A boy who uses the family lawn mower to earn money is using one resource to create another resource.                                   |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 6. Problems related to money rank high among the causes of conflict in marriage.  |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 7. The Food and Drug Administration receives complaints about hazardous products which are improperly labeled.                            |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 8. As families move through the stages of the family life cycle, demands on the family resources change.                                  |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 9. Proper care given to possessions such as toys, clothes, and home furnishings can release resources available for other consumer items. |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 10. The Department of Commerce supplies the food stamps for needy families.   |
| <input type="radio"/> T <input type="radio"/> F <input type="radio"/> 5 <input type="radio"/> 3 <input type="radio"/> 1 | 11. There is no help at the State level for consumers who live in those States which have no consumer protection office.                  |

- |           |   |           |  |
|-----------|---|-----------|--|
| T F 5 3 1 | 12. Joint planning for the use of resources is a way to avoid family conflict.  | T F 5 3 1 | 27. Services provided to the public by the government are provided without cost to individuals and families.   |
| T F 5 3 1 | 13. Careful planning by individuals and family members regarding the use of resources assures satisfaction with the results.                                      | T F 5 3 1 | 28. Businesses which lower prices of their products in order to compete with businesses which produce similar products cause an increase in the overall cost of the product to the consumer. |
| T F 5 3 1 | 14. In setting long range goals, it is necessary to consider only present resource availability and limitations as the future is too indefinite.                  | T F 5 3 1 | 29. The more protection given to consumers by government regulations, the greater the freedom of choice for the consumer.  |
| T F 5 3 1 | 15. Laws which regulate business protect consumers and honest businesses from unscrupulous practices of others.   | T F 5 3 1 | 30. The major function of advertising is to encourage people to buy expensive consumer goods which they really cannot afford.  |
| T F 5 3 1 | 16. The Federal Housing Authority helps consumers by purchasing homes and selling them to needy people.   | T F 5 3 1 | 31. Records of donations are needed for tax purposes.  |
| T F 5 3 1 | 17. The amount of food additives permitted in foods is controlled by the Food and Drug Administration.  | T F 5 3 1 | 32. Some businesses compete for consumer dollars by maintaining their prices, but increasing product quality.  |
| T F 5 3 1 | 18. A plan for the use of resources for consumer goods and services should provide for meeting psychological and emotional needs.                                 | T F 5 3 1 | 33. The net contents is the same in packages which are equal in size.  |
| T F 5 3 1 | 19. Local and State voluntary consumer organizations are made up of citizens who want to protect the interest of consumers.                                       | T F 5 3 1 | 34. Efficient consumption may have the same effect as an increase in salary.   |
| T F 5 3 1 | 20. The Federal Food, Drug, and Cosmetic Act controls the purity of products, but has no control over the labeling of weight or measure of the contents.          | T F 5 3 1 | 35. Cost of service provided by the government is paid for from public funds comprised primarily of taxes.   |
| T F 5 3 1 | 21. Once a plan for the use of resources is made, it will be necessary to stick to it or goals will not be reached.   | T F 5 3 1 | 36. Efficient consumption has the same effect as reducing one's salary.  |
| T F 5 3 1 | 22. The government sponsors legal aid societies to assist citizens who have consumer problems.  | T F 5 3 1 | 37. If a bill is paid by check, there is no legal proof the bill has been paid.  |
| T F 5 3 1 | 23. Knowledge of the resources available to individuals and families through local, state, and national agencies increases the total resources at their disposal. | T F 5 3 1 | 38. In installment sales contracts, the buyer may lose what he has paid if the terms of the contract are not met.  |
| T F 5 3 1 | 24. Local elected officials can be an influence in the quality of consumer protection.  | T F 5 3 1 | 39. Sound resource management results in a state of bankruptcy.  |
| T F 5 3 1 | 25. To open a business, one must comply with local Better Business Bureau standards.  | T F 5 3 1 | 40. Investing in government bonds is a safe way to protect savings against inflation.  |
| T F 5 3 1 | 26. Individuals do not need records of donations for tax purposes.  | T F 5 3 1 | 41. An inspection mark on meat indicates the grade such as prime or choice.  |
|           |   | T F 5 3 1 | 42. In addition to monthly payments, homeowners may have additional costs of insurance, upkeep, and taxes.   |
|           |   | T F 5 3 1 | 43. Warranties are legal promises of the consumer to follow the direction given with the item or product.  |



# CONSUMER TEST

Be sure to circle  
either T or F  
and a number.

## FORM III

- T F 5 3 1 44. Straight life insurance is the most expensive of all permanent types of life insurance.
- T F 5 3 1 45. The Truth-in-Lending Law requires that all lending institutions charge the same interest rate.
- T F 5 3 1 46. Term life insurance provides income after retirement.
- T F 5 3 1 47. The Old Age and Survivors Insurance Plan under the Social Security Act is designed to provide an adequate income for retirement.
- T F 5 3 1 48. Life insurance loans are more expensive than those of finance companies.
- T F 5 3 1 49. The cost of credit for financing housing is less with a long term mortgage than a short term mortgage at the same interest rate.
- T F 5 3 1 50. State laws regulate the operation of insurance companies within each state.
- T F 5 3 1 51. The full cost of service and repairs are included in the Warranty of a new car.
- T F 5 3 1 52. Federal laws regulate the operation of insurance companies in each state.
- T F 5 3 1 53. Savings for short term goals are best invested in a savings plan where the funds are easily withdrawn.
- T F 5 3 1 54. Leaving a will means less trouble and expense for heirs.
- T F 5 3 1 55. Grief and emotional upset often cause people to spend more than they can afford on funeral costs.
- T F 5 3 1 56. "Balloon" payments are large payments chosen by the buyer in order to pay off a debt more quickly.
- T F 5 3 1 57. The Old Age and Survivors Insurance Plan under the Social Security Act is designed to provide a minimum income upon retirement for those covered by the program.

- T F 5 3 1 58. At 65, one becomes eligible for Medicare, a privately supported fund, and Medicaid, which is paid for through social security.
- T F 5 3 1 59. "Balloon" payments are contracts with low initial payments and large final payments.
- T F 5 3 1 60. Life insurance provides benefits only in the event of death of both spouses.
- T F 5 3 1 61. In repaying a home mortgage loan, the monthly payments are used to repay the principal and the interest is paid separately.
- T F 5 3 1 62. The grade label on meat indicates the quality of the product.
- T F 5 3 1 63. In times of falling prices, bonds prove to be a better investment choice than stocks.
- T F 5 3 1 64. In most cases, individuals are capable of drawing up their own wills.
- T F 5 3 1 65. Investing in common stocks is a method used to protect against inflation.
- T F 5 3 1 66. Automobile insurance is required by federal law to prove financial responsibility in case of an accident.
- T F 5 3 1 67. Social security, medicare, and unemployment benefits are paid for by the government at no cost to the taxpayer.
- T F 5 3 1 68. The initial down payment and monthly installments do not give a true picture of the cost of owning a car.
- T F 5 3 1 69. Wills are troublesome and expensive to administer and are really for those with large estates.
- T F 5 3 1 70. A grade label on meat indicates that it has been inspected for wholesomeness.
- T F 5 3 1 71. Over-indebtedness is impossible with charge accounts as each business sets a limit on the amount which can be charged.
- T F 5 3 1 72. A bank draft is a kind of check which is acceptable to those who do not know you.
- T F 5 3 1 73. Supply and demand determines prices charged by monopolies such as public utility companies.
- T F 5 3 1 74. The consumer has a right to complain when flaws are found in products which are bought as first quality.

- T F 5 3 1 75. The Better Business Bureau receives reports of unfair business practices from the business world rather than individual consumers.
- T F 5 3 1 76. Satisfaction in resource use is more likely when consideration is given to alternative ways the resources could be used.
- T F 5 3 1 77. Ralph Nader is known as a crusader for consumers.
- T F 5 3 1 78. The time to get advice related to financial commitment is before signing a sales contract.
- T F 5 3 1 79. Consumers Union is a non-profit organization whose purpose is to provide information related to consumer goods and services.

- T F 5 3 1 80. Complete consumer protection will be achieved as soon as there are enough government regulations.
- T F 5 3 1 81. Monopolies provide goods and services at lower prices than those businesses operating in competition with others.
- T F 5 3 1 82. The Truth-in-Lending bill of 1969 gives consumers the right to know full cost of finance charges on installment sales and loans.
- T F 5 3 1 83. Individuals may help determine the use of tax money by being an informed voter.
- T F 5 3 1 84. The consideration of alternative uses of resources is confusing and has no place in decisions involving the use of resources.

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The value of reading is not so much in the ideas you read as in the ideas you *have* as a result of reading.

If you have had a new idea or tried something different as a result of reading this issue of *Illinois Teacher*, write us a note and tell us about it.

The Editor

# TRIGGERING LEARNING IN FAMILY LIFE EDUCATION<sup>1</sup>

by Jennette Dittman, *Instructor in Home Economics Education  
The Pennsylvania State University, University Park, Pennsylvania*

Setting: A high school family living class.  
Topic: Family life in the year 2000. As the class enters, the teacher turns on a tape recording which simulates a radio news broadcast. After some international and national news items, the newscaster tells about a state that has just passed a law requiring couples to get a "license" to become parents. Student reaction is immediate.

"What do they mean a 'license?' "

"They can't do that!"

"No one is going to tell me if I can have a baby!"

"Hey, that's a good idea!"

A spirited discussion follows as students respond to this startling news.

This is an example of a "trigger"—a brief, evocative, and emotionally involving presentation which is stopped abruptly, triggering student response and discussion. The spontaneous discussion which follows provides an opportunity for students to express and then examine their reactions, feelings, expectations and experiences.

The purpose is to present realistic situations with which students can identify rather than to convey information or values. Searching out related facts and examination of implied values are follow-up activities which will hopefully evolve from the trigger. Preaching in the

trigger would prematurely stifle discussion and destroy the possibilities for students to openly explore their real reactions and feelings. Students might feel compelled to defend or negate their views if they differed from those presented rather than to investigate their true feelings and examine other possible alternative reactions.

The trigger approach evolved from an idea originally conceived by the University of Michigan Television Center in 1967. At that time the University of Michigan Highway Safety Research Institute requested film as a part of a research program aimed at changing young people's driving behavior. The result was the trigger film, a one to three minute attractive, colorful and involving presentation of an emotional situation which is stopped abruptly, precipitating instantaneous discussion. No effort is made to communicate values or facts. The purpose is to involve and motivate students to look at their reactions and feelings. The driver education triggers have been widely received and have been followed by the production of additional trigger films on drug use, gerontology and mental retardation.<sup>2</sup>

Using the basic ideas of the trigger films—brevity, realism, emotional involvement, and avoidance of moralizing—the concept can be expanded using a variety of kinds of media to involve students in relevant issues. There are available a number of other educational films which could serve as triggers using either all or part of the films. For example, *Paper Drive*,<sup>3</sup> a 16 mm film, which is

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<sup>1</sup> The author is indebted to the following Pennsylvania home economics teachers for contributing trigger ideas: Marjorie Bigelow, Dianne Kerstetter, Cheri Lehman and Linda Yuskiv.

<sup>2</sup> Miller, Ellen J. Trigger filmmaking. *Audiovisual Instruction*, May, 1971, pp. 64-67.

<sup>3</sup> *Paper Drive*. Los Angeles, California: Churchill Films, 1969.



particularly useful for the middle school describes how a class's desire to win a contest leads to dishonesty which is discovered by the teacher. There are several different crisis decision points where the film could be stopped to allow for student response. An excellent source of triggers for senior high school is the *Searching Years* film series.<sup>4</sup> These short (10-13 minutes) open-end films present a group of teenagers extemporaneously discussing such issues as obligations in the family, communicating with mother, male vs. female roles, the "ideal" parent, and the difficulty of change. These films have built-in stopping points where it is suggested that discussion be held.

Other forms of media present additional trigger possibilities. Teachers in recent graduate Home Economics Education Family Life Education courses were challenged to develop "triggers" for their classes using a variety of available resources. The following are examples of the results.

Topic	Trigger
Sex roles and sex stereotypes	Pictures of persons with their faces concealed were shown. Students were asked to give the sex of each and the identifying clues which helped shape their decision.  A song from the record, <i>Free to Be, You and Me</i> , <sup>5</sup> was played. This record contains several songs effective for a variety of ages. Examples of song titles are, "William's Doll," "Boy Meets Girl,"

Parent-teen relations and responsibilities	Parents' SOS Posters. <sup>6</sup> These clever and engaging posters present captions such as "How would you like you for a child?", "When late, call, your dime will be refunded," and "Keep America beautiful, clean up your room!"
Sexuality	Slogan cards. A large variety is available at bookstores, variety stores, and restaurants. Examples: "Men Motivate Me," "I've got Sex Written All Over Me," "Stick with Me—I Know Where the Action Is!" "I Never Say No" and "Misinformation Center."
Gerontology	Story: "Grandpa's Birthday." <sup>7</sup> This story from Coed poignantly describes a grandfather waiting for his children to come to wish him happy birthday.
Self understanding and emotions	Cartoons from <i>Misery</i> books. <sup>8,9,10</sup> Enlarge making transparencies or posters. Examples of captions: "Misery is having a mustache and you're a girl," "Misery is when you've told your best friend personal things and you find out she's not your best friend any more," "Misery is playing

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- <sup>4</sup> *The Searching Years*. Los Angeles, California: Churchill Films, 1971.
- <sup>5</sup> *Thomas, Marlo and friends. Free to Be, You and Me*. New York: Bell Records 1972.
- <sup>6</sup> *Parents' SOS Posters*. Oshkosh, Wisconsin: Miles Kimball, #2274.
- <sup>7</sup> Lewandowski, Laura. *Grandpa's birthday*. Coed. December 1971, pp. 13-14.
- <sup>8</sup> Heller, Suzanne. *Misery*. New York: Paul S. Eriksson, Inc., 1965.
- <sup>9</sup> Heller, Suzanne. *Misery Loves Company*. New York: Paul S. Eriksson, Inc., 1967.
- <sup>10</sup> Heller, Suzanne. *Misery for Everybody*. Greenwich, CT: Fawcett Publications, Inc., 1970.

	right field because nobody hits the ball there."	
Emotions—their effect on behavior	Simulation experience to evoke emotions. Announce a surprise test and proceed to start test. Then stop, explaining it was to trigger emotions. Examine with students their feelings and reasons for their reactions. OR	An alternative approach to this concept would be for you and your students to produce your own triggers using video tape equipment or 8 mm cameras. Not only would you have a trigger specifically planned for your situation, but the production process would serve as an excellent learning experience for the involved students.
	Enlist the aid of a fellow teacher. Have him/her come in and "bawl" you out for something you have done. Again examine reactions.	Although there is no exact formula for a trigger, the following points are suggested guides as you create your own trigger approach.
Teenage pregnancy	A girl comes into class carrying a baby and after introductions briefly tells her story of being an unwed mother and the consequences she is now experiencing. (The teacher who used this trigger asked a friend to come in to play the part of the girl. The story was true.) An alternative method of handling this would be to have an audio or video tape made of the story or interview.	1) Identify and keep foremost in mind the mood or emotion you want to create or the message you hope to convey. What will be the students' first reaction and thought when the trigger ends?
		2) Concentrate on one message or mood.
		3) Know what to leave out. Give only the essentials related to the topic.
		4) Keep it short. Know when to stop to evoke the greatest response. Don't over extend the mood or message.
Value issues—middle school	"The Theft" and "The Bully." <sup>11</sup> (single concept open-end films). The absence of a sound track on these films allows students to project their reactions and feelings and identify with the situations presented.	5) Remember the purpose is to motivate and involve, not preach.
		6) After the trigger is presented, the teacher's role is that of a facilitator inviting open expression of ideas and feelings, helping to clarify meanings, and encouraging interaction.

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<sup>11</sup> *The Theft and The Bully*. Santa Monica, California: BFA Educational Media, #490000.

By Marilyn R. Parkhurst, *Denver Colorado*

Anna Munson, *Home Economics Teacher,  
Bald Eagle Area Schools, Wingate,  
Pennsylvania*

## A HAPPY TEST DAY

Characteristically test days are gloomy, depressing, sterile days. Tables and chairs are arranged neatly and orderly, boards are erased, bulletin boards are blank or covered and seating is created so that a minimum of encouragement is offered to those who might cheat. The visual presence of the teacher either standing at the door or sitting behind the desk, often in self-created isolation, suggests authority and control. Whereas normally a smile brightens her face, on test days preoccupation with testing procedures and the desire for all students to perform well, stimulate a frown or at least cause a very sober expression to grace her countenance. Students enter in two's or three's, either whispering or chattering rapidly to mask growing apprehensions. "Let's celebrate!" is not generally part of the pre-test vocabulary.

Do tests and evaluations have to create such environments? Do they have to be so threatening? At times it seems the test becomes an end in itself rather than a means in the educational process.

In Pennsylvania a home economics teacher and her student teacher believed that testing and evaluation procedures could be designed to lessen anxiety and create a positive, nurturing learning environment. They put their heads together and planned a combination of activities, including a measure to test understanding of housing concepts, which they hoped would encourage students to develop a more positive attitude toward testing and testing situations. The pupils had been studying a unit on housing and it was time for both teacher and learner evaluations. The students had been exposed to a variety of creative learning experiences during the unit so the teachers felt that the novelty of

a "Happy Test Day" would not detract from the testing and evaluation purpose: assessing student strengths and weaknesses, encouraging student self-assessment, determining fulfillment of specified objectives, and formulating new objectives.

In keeping with the spirit of the occasion, the teachers painted flowers on the windows, and hung crepe paper streamers around the door. A channel of chairs were strategically placed to suggest a yellow brick road. Students followed the road to the starting point where they were given instructions on where to place their belongings and how to find their seats. To reduce the temptation to share answers, students were directed to find their name tags and accompanying placemat in every other row, instead of every other seat. It was explained to them that most people like a quiet place for personal reflection, and hopefully places had been arranged to provide for that.

Once the students had located their seats the purposes for testing on housing unit concepts were discussed. Student responses could be an aid to diagnosing student needs and interests, and developing future learning experiences. Both the verbal and nonverbal behaviors of the teachers were aimed at demonstrating belief in the students' self-worth.

Although there is the potential for instructional technology to be used as a medium for evaluation, the time factor and other classroom restrictions disallowed its use. The teachers had used a number of teaching strategies during the housing unit in an effort to meet individual student needs. They recognized that testing and evaluation



strategies should also be designed to provide for individual differences, i.e., some students can express themselves orally better than in writing; some students respond better to pictures than to words.

The test itself did not resemble the typical classroom paper and pencil, fill-in-the-blank test. The first item asked the student to formulate and respond to a question which he/she believed represented the most important area of the unit. By asking each student to write a question the two teachers hoped the student would be encouraged to express the content he/she felt should have been mastered rather than the content which the teacher thought should be known. The teachers also hoped to have a clearer estimate of how closely the student had come to understanding the housing concepts emphasized in the unit.

The initial question was followed by a variety of items including true-false, fill-in-the-blank, and identification of visuals. The items were designed to measure various levels of difficulty and mastery.

Mental breathers were incorporated throughout the test in the form of strategically placed items. These items asked students to perform a physical activity such as stretching, closing their eyes for a moment, and getting up and taking a fruit juice break.

How effective was this approach to testing? The students verbally expressed positive feelings and several students from other home economics classes asked when they would be "celebrating." Do the teachers have a more accurate assessment of what their students really understand about the housing concepts emphasized in their home economics class? Since the experiment was only conducted once, a definite statement related to cognitive learning cannot be made, but in terms of affect both teachers noted that student anxiety was greatly reduced. The students seemed to be able to attend to the questions rather than to maintaining their self-concept from threat of failure.

The experience described above is an example of what can be done to create a more positive approach to testing and evaluation. Not all teachers will feel comfortable with the strategies employed nor will all students equally enjoy the experience. However, perhaps by sharing "Happy Test Day" ideas, new thoughts will be generated for planning and administering testing and evaluation procedures in your home economics classroom, such as student participation in test construction, group work on tests, visual responses to items, and the incorporation of instructional technology into testing and evaluation procedures.

As Combs said, the test should be perceived by students as a furthering process rather than as a procedure for judging self-worth.\*



We're planning to make an index for all issues of *Illinois Teacher*. If you have suggestions for subject or ideas you would like indexed, let us know. A postcard will do.

The Editor



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\* Combs, A. *The Professional Education of Teachers*. Boston: Allyn and Bacon, Inc., Second Edition, 1974.

# UNIFIED ARTS AT HUNTINGDON'S MIDDLE SCHOOL

By Sharon Andrews  
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As you open the door of the Unified Arts Department of the Middle School in Huntingdon, Pennsylvania, you can sense a new and exciting school environment. In one large room you are struck by the variety of sounds, sights, and smells: the buzzing of voices, the banging of boards, the clinking of scissors and shears, the ripping of material being straightened, the slurping of paint, the high pitched whines of machinery, the softened sounds of rock'n roll music, the splashing of water, the pounding of hammers, the grinding of saws, the roaring of sewing machines, the scatterings of individuals and of small groups working on projects, the aromas of cooking food, the dusty smells of ground sawdust, the colorful signs, bulletin boards, exhibits, and project examples.

Huntingdon is a small college community of approximately seven thousand people located in Central Pennsylvania. The Middle School in the Huntingdon Area School District involves approximately eight hundred students of grades six, seven, and eight, and thirty-five to forty faculty members. The school is constructed along the current educational philosophy of open classroom education.

## Underlying Philosophy

The open classroom philosophy asserts that the traditional roles of the teacher and pupil are discarded "for a much freer, more informal, highly individualized, child-centered learning experience. Respect for and trust in the child are perhaps the most basic

principles, with assumption that all children want to learn and will learn, if the emphasis is on learning and not on teaching, on each child's thinking processes and not rote skill acquisition, on freedom and responsibility rather than conformity and following directions."<sup>1</sup> To accomplish this, four features are usually implemented in a school with this belief system. First, the room is decentralized to become an open, flexible space divided into functional areas rather than one fixed homogeneous unit. Second, the students are free to explore this room through groups and by themselves, and to choose their own activities. Third, the environment is rich in learning resources. Fourth, the teacher works with individual students or small groups of learners most of the time.<sup>2</sup>



<sup>1</sup> Nyquist, Ewald B. and Hawes, Gene R., eds. *Open Classroom: A Sourcebook for Parents and Teachers*. New York: Bantam Books, 1972, pp. 83-84.

<sup>2</sup> *Ibid.*, p. 10.

The middle school differs from its familiar counterpart, the junior high school, in that the middle school is intended to provide an opportunity for student exploration of interests and self-discovery rather than for preparation for future education, vocations or careers. Many educators emphasize that the middle school should provide an environment where the child, not the program, is most important, and where the opportunity to succeed exists. The educators further stress that this school model should function as a distinct, very flexible, and unique organization tailored to the special needs of preadolescence and early adolescent youth. Therefore, it should not be an extension of the elementary school nor seek to copy the high school.<sup>3</sup>

In Huntingdon Middle School the Unified Arts Department is attempting ultimately to be a culmination of these theories. One room houses the areas of fine arts, home arts, and industrial arts. The arena for each of the arts is physically separated by movable boundaries, bookshelves, and other wheeled storage accessories. The three art areas meet in the middle of the room in a resource center. There the students are able to find books, magazines, film loops, projectors, filmstrips, and other media to supplement their knowledge and skills related to their specific project or subject. The center was created to be used without the assistance of an instructor to alleviate the teachers'



<sup>3</sup> Batezek, W. George. "The Middle School: Philosophy, Program, Organization," Chapter 1, Section 4 in J. E. Mertling and H. G. Getz [eds.] **Education for the Middle School Years: Readings**. Glenview, Illinois: Scott, Foresman and Co., 1971.

<sup>4</sup> Blakesler, Robin. "Move Over Junior High. . . Here Comes the Middle School," **Pennsylvania Education**, Vol. 4, Number 4, 1972, p. 3.

responsibilities and allot more time to work individually with students.

### Organization of the Program

This 18-month-old program is being funded by a three year grant under Title III of the Elementary and Secondary Act.<sup>4</sup> By 1975 the Huntingdon project hopes to produce a working document that other schools may use to develop programs of their own. Presently the Unified Arts Department is under the responsibility of a team of three teachers: Mrs. Donna Leamer in the home arts area, Mr. Angelo Ciarrocco in the industrial arts section, and Miss Annette Brenick in the fine arts part of the room. These faculty members are currently supplemented by a group of consultants, a coordinator, and a team of undergraduate students from The Pennsylvania State University. Each week the three teachers meet with each student in the school for one 100-minute period. During this time the students are exposed to different structured and unstructured experiences in the three areas of the department. The structured curriculum is intended for preparing the students for life in the community and home—an attempt to enhance self-sufficiency. Option periods, the unstructured part of the curriculum, are intended to allow students to explore and develop interests and skills.

The students are divided into the classes according to their grade level. The sixth graders meet primarily for structured time with an emphasis on becoming more familiar with the equipment and basic skills in each of the areas. The seventh graders have more time for developing their own interests and for studying the skills and background material more comprehensively. Finally, the eighth graders spend an even shorter amount of time in structured classes and greater time in option periods working on their own interests. Since the new eighth grade curriculum has been developed the most extensively of the three at this stage in the Title III project, the following will be primarily a discussion of that program.





The eighth graders spend only six weeks of structured time in each of the three areas of the Unified Arts Department and eighteen in the area(s) of their interest. In the newly developed curriculum, the eighteen weeks of options offer a variety of activities and skills. A "super-lesson" is used to introduce the scope of possibilities that can be undertaken. Super-lessons were developed by the staff to expose all of the students in the Unified Arts Department during the same period to a central concept or lesson. The three teachers plan a lesson together for any of the three grades. The super-lesson may last for five or one hundred minutes depending upon the intent. One example of a super-lesson may be planning for an activity in Unified Arts with an emphasis on the importance and "how to's" of planning. After being exposed to such, through the instruction of one or all three of the teachers, the students will go to their own areas of the department and plan for their specific art experience or activity. In the eighth grade curriculum, a super-lesson introducing the semester of unstructured options, could consist of an explanation of the possibilities along with displays of products, art demonstrations, and films. The activities and tasks presently involved in the super-lesson are divided into four areas: Folk Arts, such as making bread, candles, weather vanes, macrame, and weaving; TV Cooking Show, during which the students write a script, design and construct a set, produce a video-tape, design titles, visual lead-ins and subtitles, and prepare foods in various stages; Presentation of Self, which involves constructing clothing, creating belts, jewelry, and sandals, having a fashion show, and visiting a sewing factory; as well as Art in the Community during which the students gather materials for sculpture, spend

time with a welder, see and record artists at work in the community and various other possibilities. After being exposed to this, the students select their option. Since the students stay with one option task only as long as it takes them to finish the selected activity or master the skill they again have a chance to choose from any of the previous areas and may, at some future time, be able to elect from some of the following: camping (crafts, games, cooking), interior design and decoration (remodeling and designing in old homes), culture (study of aesthetics and ceremonies of different cultures), welding (sculptures), child care (physical and emotional development of young children studied along with play and its effect on the young), calligraphy (study of symbols), weaving (from natural forms), and doing the media (art, film, and photography).

In developing a new curriculum for the Unified Arts Department, the team of teachers, consultants, assistants, and the coordinator are attempting to supplement the program with the input of the community. Local artists in Huntingdon have offered to provide art objects to be displayed in the middle school for one month periods. At some time during the month artists and craftsmen come in and discuss their art with groups of students. Other artists in the community may demonstrate their art during a super-lesson. Community consultants are available to contribute their ideas to the program. Finally, an advisory committee of parents from the Huntingdon area is being set up to provide feedback for the staff and to help inform the public about the Unified Arts program.





How do the students feel about all of this? Interviews and records are being made on the feelings, opinions, constructive criticisms, and other feedback which is provided by the students. Most of this feedback has come from the eighth graders since the innovations have been implemented mainly in their level.

For instance, immediately after a super-lesson introducing the eighteen weeks of options, randomly selected groups of students were interviewed about the new program. All

of them were pleased about having an opportunity to choose a project. They felt they would be encouraged to learn more about the area which they had chosen. The novelty of the new curriculum, however, caused more confusion in some classes than in others. A few of the students interviewed misunderstood the new terminology (i.e., Folk Arts, TV Cooking Show) in their efforts to determine which of the new titles were actually home arts, industrial arts, or fine arts. In reality each of the projects involved in these newly created areas, would be developed at some stage in each of the three art areas. The students were also confused that the options did not have clear-cut divisions between them, but that a project might be created under folk arts or presentation of self. Generally, however, the eighth graders were eager to create their own projects after the super-lesson.

Huntingdon's Unified Arts Department is presently a highly experimental project which needs more time to be fully developed. This requires tremendous amounts of time and work for those involved in developing and implementing the innovative curriculum. However, it is exciting to see a middle school attempting to fulfill the needs of transcendent learners in accordance with emerging educational theories.

**See page 39 for special offer with time limitation.**



The purpose of this article is twofold. One purpose is to issue a plea to home economists to become more active in assuming leadership roles in school and community settings. The other is to suggest one possible process by which home economists can carry out a leadership role.

This process can be used for student-teacher planning of a unit of classroom instruction or an entire course. It is adaptable for development of individual student projects. It can serve as a way of helping student clubs or organizations in program planning, development of projects, and solving problems of concern. As one becomes confident in the use of the total process he or she might offer to conduct a problem solving session for a school or community organization in which he/she is a member or even offer to serve as a consultant to other groups.

As a profession, we are dedicated to helping individuals, families and other groups effectively cope with a complex society. Facilitating their feeling of confidence in their ability to solve their problems of concern is one important step.

A frequent topic of discussion at the 1973 Eleventh Lake Placid Conference was that of having home economists increasingly demonstrate the leadership skills necessary for helping individuals and groups solve problems involved in coping with our complex and rapidly changing society. The number of rapid changes in nearly every aspect of society frequently requires flexible and adaptable leadership. Increasingly, leadership is needed that is open and non-judgmental, that elicits the creative and imaginative abilities of individuals and that helps them develop

commitment to involvement and action for solving problems.

Use of the following process for group identification of problems and determination of action calls for this type of leadership. When used with groups, the following activities have resulted in identification and clarification of problems plus positive goal-oriented action by group members. The total process incorporates many activities that home economics teachers use in classroom instruction, such as brainstorming, developing consensus, field force technique, and large and small group work. One will also find similarities to the procedures used in the Future Homemakers of America's Impact Program.

### General Guidelines

For the most effective use of this process, the leader needs to refrain from becoming personally involved or projecting personal values into the situation. Indirect and supportive verbal behavior, plus the giving of clear directions, provision of examples, and summarization at appropriate times is essential for the success of the process.

The number of participants might be as few as six or as many as forty, but careful attention to inclusion of all participants in all activities is an important factor that helps lead to unified commitment, action, and supportive interpersonal relationships. The total time necessary to carry out all of the activities will be determined by the size of the group. A minimum of two hours might be sufficient for a very small group but the larger the group, the longer the time element. It might be best to begin by giving an explanation of the purpose

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## A Method of Providing Leadership for Problem Solving Action

*\*The author is indebted to Irene Berokze for initial introduction to the use of the process.*



of the activities and an overview of the four phases of the process.

### Clarifying Problems of Concern

Though this phase can be time consuming when working with a large group, it helps each individual express his concerns and identify with concerns of others in the group. Finding out that one has concerns similar to others' helps to build group unity and cohesion and fosters personal commitment to group action. Here is a possible way to proceed.

1. Have each individual quickly write down, in brief form, problems that he/she feels are important for this group's consideration. Make clear that at this time variability is important in developing a list of concerns and every idea is acceptable.
2. Go around the group, asking each individual to state one of his/her concerns. As these are given, number and write each one on a blackboard or large space where all can see and continue around the group until no one has new items to add to the list.
3. (Optional) If there is a list of issues or problems available from some other source, as a state or national organization, read these to see if there are further items the group would like to include.
4. Check for clarity by going through the items, asking if all understand the meaning of each. If there are any questions, have the person who gave the item clarify its meaning. Individuals may express the desire to group the statements that are similar, but this phase tends to be most effective if items are not combined or grouped. Elimination of any item should be done only with the consent of the person who gave the item. (If the group plans to break at this time, it would be well to plan the next step before doing so.)

### Developing Consensus on Problems of Concern

The purpose of this phase is to have the group come to a consensus on which problems are of greatest concern to them.

1. Ask each individual to write on a slip of paper the numbers of the three problems he/she feels are most important and to keep a copy of these choices. The items need not be written in any order of priority. With the help of volunteers, collect and tally the frequency of items selected. If tallies show some items are close or tied in frequency of selection, ask if anyone wishes to change a selection.
2. Using the tallies, have the group decide which items should be considered for the next phase. Explain that the group will break into smaller groups of not fewer than three or greater than eight members. Each small group will deal with a specific problem of interest. If too many problems are selected, the plans for action could become too broad and diversified for effectiveness.

### Identifying Reasons for Problems Continuing to Exist

For this phase, the field-force technique developed by Kurt Lewin (1) is used to analyze each selected problem. Because this will be done by small groups it is important that it be explained to the total group and demonstrated by working through one or two examples.

1. Explain that according to Lewin's theory a problem may remain unresolved or at a state of equilibrium. This results when some restraining forces are preventing the problem from being resolved while other driving forces are keeping the problem from becoming more serious. (Other sources of explanation and use of Lewin's theory are given in the bibliography.) Using a large writing area, demonstrate the explanation with your own example or one that is given here. To maximize participation, give only one or two examples of forces, and elicit from the group restraining forces that prevent the best possible solution from being reached and driving forces that prevent the problem from becoming worse. Request that statements be short and concise. This part should be done in a manner similar to brainstorming in that all responses are acceptable.
2. Some factors may be more important or have more force than others. Ask the

### Example I: Field Force Analysis of the Problem of Smoking

#### Equilibrium

Problem: Smoking 1 pack of cigarettes a day

Driving Forces		Restraining Forces	
<b>WORST Possible Solution</b>	(preventing increased smoking)	(Preventing stopping)	<b>BEST Possible Solution</b>
	Physical Health	Habit	
	Cost	Socialization	
	Disapproval of Others	Fear of Weight gain	
2 or more packs a day			Stop Smoking

participants which factors they feel are the most important or have the most force. Underline those heavily to indicate their importance. (See example II.) Discuss how the two sets of forces may keep the problem at a state of equilibrium. Note that some factors may be both driving and restraining forces as sex stereotyping in Example II.

### Example II: Field Force Analysis of Enrollment in Courses

#### Equilibrium

Problem: Decreasing enrollment in courses

Driving Forces		Restraining Forces	
<b>WORST Possible Solution</b>	Interest of Some Students	Conflicts in Scheduling	<b>BEST Possible Solution</b>
Program dropped due to lack of enrollment	Pre-requisites not required	Courses not Required	Program expanded due to increased enrollment
	Sex stereotyped*	Sex stereotyped*	

\* Could be both driving and restraining force if traditionally regarded as appropriate for one sex.

3. When the total group understands the process of identifying restraining and driving forces, have them break into small

groups, state their problem concisely, and develop a field force analysis for their problem. Explain that they will present their analysis to the total group and have them write it on a large sheet of newsprint, transparency or a blackboard for presentation.

4. The small group presentations should allow for reactions and input from the total group. Are there other forces not identified? Are they in agreement that the underlined forces are the most important ones?

#### Disrupting the Equilibrium

This phase identifies courses of action for obtaining the best possible solutions to problems.

### Example III: Field Force Analysis of Community Day Care Available

#### Equilibrium

Problem: Mediocre and Limited Day Care Available

Driving Forces		Restraining Forces	
<b>WORST Possible Solution</b>	Working mothers using present services	Lack of community understanding of need and purpose	<b>BEST Possible Solution</b>
No Day Care Services available	Good location of present services	Cost of quality program	Optimum in quality and availability of Day Care Services
	Support of a few concerned citizen groups	Lack of qualified staff	

1. Using an example, explain that to change or "disrupt" the equilibrium, one needs to remove or decrease the strength of some of the restraining forces and increase the strength of some of the driving forces. Give an example of how restraining forces may provide clues for obtaining new driving forces. (The driving force of a public relations program could be used to combat lack of community understanding listed as a restraining force in Example III.) Also explain that adding new driving forces to create change might not work due to the possibility of new counter forces appearing. If a new driving force is added, possible

counter forces that could appear should be identified. (In Example III, attempts to obtain tax payer support might result in organized opposition by some citizens.

2. Each small group should now identify ways of disrupting the equilibrium for their specific problem by adding, eliminating, strengthening or weakening forces. Explain that their list of suggestions will become the small group's initial proposal for action. Have each group present its ideas for disrupting the equilibrium for solution of problem to the total group for suggestions and comments.

3. Then the small groups should rework their proposal for final presentation and acceptance by the total group. The final proposal should:

- a) indicate who will be responsible for specific actions that will create certain changes,

- b) give dates or time limits for activities, and
- c) explain how the effectiveness of the actions in terms of results will be evaluated.

Some of the actions for change might be ones that the entire group would carry out which means they will have to indicate their willingness to support and actually do the activity. Other activities for change might be ones for which the small group would become responsible.

4. For the final small group presentations of proposals, it is helpful if copies of each proposal can be distributed to individuals. The suggested actions and time schedule are then accepted or rejected by the entire group. Explain that their accepting the proposal means they are going to fulfill their responsibilities of action with reference to the time schedule as well as support the approved plans of action to be carried out by small groups and individuals.

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# HOME ECONOMICS EDUCATION: SEXISM IN THE SCHOOLS

by Susan F. Weis

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Recent social attention has been focused upon the public school experiences which create or reinforce discriminatory stereotypes about appropriate behaviors for men and women. Three separate works identify various aspects of school life including administrative structure, personnel, curriculum, teacher behaviors, educational materials and textbooks as perpetrating sex-role expectations which are inconsistent with the actual freedom of role selection now available in society to males and females.<sup>1,2,3</sup> One author outlined the problem in the passage,

The educational problem here is that the social system, with its pervasive network of educational and group supports, pressures the individual to conform to sex-role stereotypes, while at the same time the educational system, at least in rhetoric, strives in the name of freedom and pluralism to enhance individual self-determination and to foster diversity. The antithetical elements in this situation cry out for rectification for the good of both society and the individual.<sup>4</sup>

Messick ends this passage by stating, "One possibility is to consider the uses of education for expanding in meaningful ways the individual's role options, including sex-role options."<sup>5</sup>

Saario, Tittle and Jacklin<sup>6</sup> perceive home economics and industrial arts as twin agents in the schools which reinforce the stereotypes that males are mechanically and scientifically inclined while girls excel at reading and language and prepare for a life as a wife and mother.

Perreault echoed this indictment in her passage,

In many schools girls are required to take a course in home economics and boys are to take a course in industrial arts. This reinforces the sexual stereotypes that household work is for girls and mechanical tasks are for boys. Some schools have "bachelor cooking," the assumption being that boys will not have to do the family cooking.<sup>7</sup>

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1 Anderson, S., Ed., **Sex Differences and Discrimination in Education**. Belmont: Wadsworth, 1972.

2 National Education Association, **Sex Role Stereotyping in the Schools**. Washington, DC: 1973.

3 The Emma Willard Task Force on Education, **Sexism in Education**, 3rd edit., Minneapolis: 1971.

4 Messick, S. What kind of difference does sex make? in Anderson, S., ed., **Sex Differences and Discrimination in Education**. Belmont: Wadsworth, 1972.

5 Ibid., p. 7.

6 Saario, T.N., Jacklin, C.N. and Tittle, C.K. Sex role stereotyping in the public schools, **Harvard Educational Review**, 1973, 43, 3, 386-416.

7 Perreault, G., Q: Do the schools need women's liberation? A: yes, yes, yes, yes, yes. . . in **Sexism in Education**, 3rd edit., Minneapolis: The Emma Willard Task Force on Education, 1971, 10-12.

Register noted,

Home Ec and shop requirements are unrealistic and perpetrate rigid sex roles. Those of us who try, years later, to share household tasks more equitably find it hard to escape the influence of our junior high education.<sup>8</sup>

Perreault quoted from Federbush,

Many administrators talk as if they think girls salivate at the words, "children," "crafts," "cooking," and "sewing."<sup>9</sup>

Saario, Tittle and Jacklin further pointed out that data from the United States Office of Education's Bureau of Adult, Vocational and Technical Education "substantially reflected this skewed sorting of students into sex appropriate vocational tracks."<sup>10</sup> They continued,

Until quite recently, no one had challenged the long-standing tendency of school boards, state boards of education, and other authoritative educational bodies to mandate curricular requirements and other educational practices which differ by sex. Now a substantial number of local groups have begun to do just that. Organizations have begun to analyze the textbooks being used in districts around the country to

challenge physical education policies to press for class action suits on vocational educational issues and to review employment advancement practices.<sup>11</sup>

Trends in employment clearly document that women are entering and staying in the labor force in greater numbers today. Labor force predictions that nine out of ten females will enter the labor force at some time in their lives<sup>12</sup> indicate that the assumption of the traditional home-oriented roles of females is being altered by their labor force participation. Further, these predictions indicate that such role alterations will bear an impact upon their life styles as well as the behaviors of male cohorts of employed females, upon their home life, and upon parent practices in caring for and rearing offspring.

Some of the previous assumptions underlying the content of home economics curriculums are challenged by these alterations in adult male and female behaviors. The legal ramifications of recent acts including Title IX of the Education Amendments Act of 1972, Executive Order #11246, Title VII of the Civil Rights Act of 1964, and the Equal Pay Act, indicate that home economics education cannot continue to present programs which are founded upon traditional sex-role stereotypes and assumptions. Table 1 presents some of the sexist assumptions underlying home economics education with their evidence and suggested alternatives to correct or minimize sexist orientations.

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<sup>8</sup> Register, C., *Boys over here, girls over there*, in **Sexism in Education**, 3rd edit., Minneapolis: The Emma Willard Task Force on Education, 1971, 13-14.

<sup>9</sup> Perreault, *op. cit.*, p. 11.

<sup>10</sup> Saario, *op. cit.*, p. 406.

<sup>11</sup> *Ibid.*, p. 410.

<sup>12</sup> Women's Bureau, U.S. Department of Labor. **1969 Handbook on Women Workers**, Washington, DC: Government Printing Office, 1969.

Table 1  
SOME SEXIST ASSUMPTIONS ABOUT HOME ECONOMICS EDUCATION,  
THEIR EVIDENCE AND SOME CORRECTIVE ALTERNATIVES

Assumption	Evidence	Alternatives
that students enrolled in home economics courses are female	requiring home economics of female students only • references in curriculum guides, textbooks and educational materials to female audience, use of feminine pronouns, abundance of pictures of females	Require basic program of home economics of all students. Gear textbooks, guides and materials to both males and females, use feminine and masculine or neuter pronouns, incorporate pictures of both sexes.
that females rather than males will attend to household maintenance, cooking, clothing care and child rearing	requiring home economics of female students only	Require basic program of all students. Present content on sharing household and child care responsibilities. Gear content to managing home and family roles with an occupational role.
that persons can readily substitute time for money as a resource to achieve goals	content emphasizing home production and service such as clothing construction, producing food from raw products, making accessories for home	Present home service and production as one option, granting equal time to becoming knowledgeable in buying and using out-of-home goods and services.
that the nuclear family unit is the only acceptable unit of social life	content focused only on the nuclear family • portrayal of nuclear family in educational media	Examine the varieties in family life including same-sex partnerships, single parent families, extended family groups, partnerships without children and communal family groups.
that double standards exist for female and male interpersonal and sexual activity	content aimed at dating and mating etiquette which sets differentiated behavior standards for males and females, such as male and female roles, seeking and accepting dates  partial or sketchy sex education	Focus on behaviors which facilitate interpersonal relations without sex-differentiated standards.  Frank and accurate sex education including birth control information for all male and female students.
that female career aspiration is secondary to primary aspirations of becoming wife and mother	content portraying wife and mother roles as fulltime activities	Focus on parenting as a role shared by male and female partners.  Present content on family planning and parenting in the context of career development stages.
that females are more concerned about their appearance than males	proportion of program content devoted to dress, grooming, diet and use of cosmetics  reference to female appearance in context of dating-mating-marriage syndrome	Present basics of nutrition, grooming, personal care and dress minimizing sex-differentiated standards.
that females are destined to be dependent upon males	Content emphasizing dating-mating-marriage syndrome  content promoting passiveness and dependence as ideal female traits	Emphasize life planning with career-marriage-family as options.  Present family units composed of varieties of partnerships and family groups including solo living.



Assumption	Evidence	Alternatives
that females are interested in expressive activities while males are interested in instrumental activities	sex-segregated industrial arts and home economics requirements in school.	Stress survival skills of resource management, and meeting basic needs.
	content emphasizing handcrafts geared to creating feminine apparel and accessories	Require basic courses in industrial arts of both male and female students.
		Present handcrafts as avocational and/or vocational activities for both sexes.

These assumptions were developed from cursory reviews of educational materials in the field. They are not set forth as comprehensive, nor have they been empirically tested for validity.

From the literature on sex-role stereotyping and sexism in education home economics programs are being challenged by individuals and groups pressing for a change. It appears both critical and logical to urge home economists in education to assume active roles in examining their programs; in developing non-biased curriculums; in opening all program offerings to male and female students and in participating in local, state, and national efforts to overcome discrimination and stereotyping in the schools.



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### **I Handled It This Way**

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The Editor



One of the most critical problems facing the world today is that of population growth. A growing population places a critical strain on our resources while the supply of resources determines, to some extent, the size of the population which can be supported. One example of this circular effect may be seen in the area of food supply and production which relies heavily on the use of artificial fertilizers which, in turn, rely on oil production. The last of these, oil, is in short supply around the world and will influence both the production of fertilizer and the food supply available to the population. Until it is possible to achieve the ultimate goal, stability of population, the task at hand becomes one of maximizing the use of available resources.

Home economics is concerned with the efficient and effective use of human and physical resources by individuals and families for the purpose of improving quality of life. Quality of life is a broad, all-inclusive concept referring to an individual's or family's physical, social, emotional, and psychological capacity to achieve optimum human potential.

Many factors contribute to the achievement of human potential by individuals, families, and nations. When areas become densely

populated, there is usually a limitation of resources which may prohibit an individual from satisfying his basic needs. This places limitations upon one's growth and the achievement of one's fullest human potential. A balance between family resources and family size enables families to achieve a greater number of high priority goals. When there is equilibrium between population and available resources within a nation, there is a greater possibility of achieving a quality of life for all people than when population growth restricts resource availability and prohibits individuals from meeting basic as well as higher level needs. Thus, it becomes evident that the use of individual and family resources cannot be isolated from the spiralling effects of population growth.

Home economics teachers can no longer separate population education/family planning from the home economics curriculum. For particular civilizations, communities or countries to survive, people must find a way of assuring a balance between population growth and resource availability. Because one country's survival impinges on another's, it is necessary to know not only about one's own country but to examine one's country in relationship to other countries.

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## ***FAMILY PLANNING AND POPULATION ISSUES: THEIR PLACE IN HOME ECONOMICS***

*\*Both Dr. Wallace and Ms. Dewald have worked for the past two years as assistants to the evaluation component of the International Family Planning Project headquartered at the American Home Economics Association.*

**TABLE 1**  
Comparison of Population Statistics Among Three Countries

	<u>Philippines</u>	<u>Tanzania</u>	<u>United States</u>
Births per 1000 population	44	47	15.6
Infant deaths per 1000 births	78	165	18.5
Life expectancy at birth	48.8M, 53.3F	40-41	71.7
Percent of population under 15	47	44	30
Rate of population growth	3.0	2.6	1.0
Number of years to double population at 1971 rate of natural increase	20	26	70
Percent urban population	37	7	73.5
Percent agricultural population	57	93	26.5
Per capita GNP	\$266	\$80	\$3,670
Percent literate	72	15-20	99
Population per physician	9840	29,705	645
Percent of dwellings with one room	20.3	36.5	1.9

Population Program Assistance, AID, 1972.

Statistical Yearbook 1972, Statistical Office of the U.N., NY, 1973.

Population Reference Bureau, 1970.

Upon first examination of the data in Table 1, one might conclude that the U.S. appears to be in good shape when compared to selected other countries; however, other facts reveal that our country is not immune to population related problems. When other comparisons are made, the U.S. ranks 11th in maternal mortality and 14th in infant mortality; only 10% of the couples in 1972 wanted one child; and, almost three-fourths of our population lives on 1.5% of the land. These facts demonstrate the need for home economists to be concerned, informed, and knowledgeable about population related problems as a basis for including them in the home economics curriculum.

Population education/family planning and home economics focus upon some common goals: decision making skills as a basis for the individual to function in the environment, and helping individuals and families achieve a quality life through the effective use of available resources. By incorporating population education/family planning concepts into components of the home economics curriculum, teachers can help students have an increased awareness of means to achieve a desired quality of life.

### **The How of Population Education/**

#### **Family Planning**

Population education/family planning concepts can be incorporated into all areas of home economics curriculum. Family life education, sexuality, child development, and management include concepts such as

managerial processes, values and goals, decision making, family life cycle, life styles, male and female roles, family health, children's health, use of resources, uniqueness of individuals, and universality of families all of which are relevant aspects of population education/family planning. Food, clothing, and shelter, basic necessities of life, will be areas expanded upon in the remainder of this article.

#### *Food*

Basic to the population problem are nutrition, health, and sanitation. Concerns about poverty level, environmental sanitation, technology for food production and distribution, and adequate health standards surface as nutritious food is viewed as a means of improving an individual's or family's quality of life. By recognizing the interrelationships of these concerns which influence the nutritional status of individuals and families, the foods and nutrition curriculum becomes a viable area for the inclusion of population education/family planning concepts.

Concept: Nutritional needs

Generalization: Nutritional needs are more critical at specific periods in the life cycle.

Supporting Facts:

1. Serious malnourishment or undernourishment of a pregnant woman results in harmful effects on the development of the fetus and the newborn child.
2. The nutritional requirements during preg-



nancy, particularly during the last half of pregnancy gradually increase from the nutritional requirements before pregnancy.

3. Preschool children and adolescents are in a period of rapid growth and development. Ample protein to support this rapid growth is important together with sufficient calcium and phosphorus which are necessary for bone tissue. The weight which is *normal* for an individual at 22 years of age is the weight which promotes optimum health the remainder of life. People over 55 years of age need about 20% fewer calories than people under this age.
5. The general dietary requirements of the older person are affected by lessened physical activity, changes in general health, and changes in the ability to chew, digest, and absorb food.

Concept: Cultural and socioeconomic influences of food

Generalization: Although people everywhere have the same nutritional requirements, world food supplies are not evenly distributed among the world's population.

Supporting Facts:

1. Small children in all countries need generous amounts of foods supplying high-quality protein.
2. The extremely high mortality rates in the 1-to-4-year age group in developing countries suggest that moderate protein-calorie malnutrition affects at least 50% of these children.
3. Nearly 70% of the children in underdeveloped countries suffer from malnutrition.
4. Sixty percent of the populations in less developed countries suffer from undernutrition, malnutrition or both.
5. The USDA estimates by the year 2000 the need for cereal grain in the less developed countries will increase by approximately 650 million metric tons. Assuming no improvement in diets, only 8%, or approximately 53 million tons, could be provided by developed countries.

6. Poor crop practices, the raising of non-food cash crops, and lack of transportation, food processing, and preservation facilities are all factors which make essential foods impossible to obtain.

### *Clothing*

In addition to other functions, clothing serves as a means for self-expression, protection from environment and one way of conveying status for individuals and groups. Although it may be difficult to incorporate population education/family planning concepts into the clothing curriculum, it is not impossible especially when clothing is viewed as a reflection of the individual and/or family's economic and social well being.

Concept: Meeting clothing needs

Generalization: The availability and use of resources for achieving clothing goals are related to the allocation of resources for other individual and family goals.

Supporting facts:

1. Average clothing expenditures increase as a child grows older, peaks at young adulthood (18-24), then declines with advancing age.
2. Clothing expenditures increase as family income increases but at a slower rate.
3. At all income levels, clothing for a child 2-5 years old costs the family about half as much as that for an adult male.
4. Clothing expenditures for adults 18-64 years old differ with their family status, interests, and financial pressures.
5. For moderate and low income families clothing expenditures are not regular. Seasonal demands and sudden disintegration of garments make it difficult for every member to have an adequate wardrobe at all times.

Concept: Social aspects of clothing

Generalization: Clothing is related to social acceptance in the occupational world. In turn, occupational achievement gives families

increased income to improve their quality of life.

Supporting Facts:

1. Each person, consciously or unconsciously, expresses personality and feelings about themselves through the type of clothing selected.
2. There are no norms for choice in clothing as there are in the nutritional needs of the body. Clothing problems in a family must be analyzed in terms of the individual in a group setting.
3. People in the U.S. between the ages of 16 and 24 spend more for clothing than at any other time in their lives.
4. The wardrobe needs of women in careers such as legal and medical professions, scientific fields, nursing, specialized teaching, writing and editing in publishing houses, and business may be an important factor in on-the-job success.

*Housing*

A number of factors combine to influence a family's or an individual's choice of housing. Housing can fulfill many basic needs, i.e., privacy, security, self-expression, and protection from the environment. The relevance of population education/family planning concepts in this part of the home economics curriculum becomes more evident when dealing with housing in terms of family size, location, resource availability, and the physical environment in which people live.

Concept: Environmental aspects of housing

Generalization: Environmental factors which influence the form and use of housing are social, economic, cultural, technological, physical, and governmental.

Supporting Facts:

1. Mental disorder is directly proportional to population concentration.<sup>1</sup>
2. With children who have problems involving relationships with others, an uncrowded home is less likely to be associated with delinquency than is an unclean or disorderly home.
3. For most people housing is the largest single item in the budget.<sup>2</sup>
4. Between 1948 and 1970, about 19% of the population changed residence every year.
5. The quality of housing influences individuals' social and psychological functioning.
6. Renters are more than twice as likely as home owners to be living in dilapidated housing.
7. Population patterns in the U.S. indicate a steady increase in the number of new families established: This means a greater need for housing.

Concept: Satisfaction of housing needs

Generalization: An individual's or a family's requirements for housing change with variations in the family situation.

Supporting Facts:

1. As a family expands in size, there is generally a need for expanded living space.
2. Between 1960 and 1970, the number of housing units in structures with two or more units, mainly apartments, increased 36.5% while one unit structures increased only 6.9%.
3. Family income generally varies from stage to stage in the life cycle with the peak years of income usually not coinciding with the family's greatest financial needs.<sup>3</sup>

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<sup>1</sup>Phiha, Jane and Marjorie Brown, **Evaluation Materials: Physical Home Environment and Psychological and Social Factors.** Minneapolis, Burgess Publ. Co., 1969. p. 170.

<sup>2</sup>Morton, Ruth, et. al., **The Home.** New York, McGraw-Hill Book Co. 1970. p. 52.

<sup>3</sup>Gross, Irma, Elizabeth Crandall and Marjorie Knoll. **Management for Modern Families.** 1973. New York. Appleton-Century-Crofts. pp. 511-519.

4. Changes in housing location affect many aspects of personal and family life: pattern of expenditures; performance of household chores; patterns of sleeping, eating, and grooming; employment, leisure activities; and, relations with neighbors, relatives, and friends.
5. Families in the U.S. with annual incomes of between \$6000 and \$10,000 are moving to the suburbs in unprecedented numbers.
6. Low income families pay a *larger* proportion of their income for housing than do high income families.
7. One-third of the population of the U.S. have incomes so low that they cannot be expected to provide adequate housing for themselves.

### The Challenge

Behaviors and values of individuals and families influence population trends. With the present world population total of 3.5 billion and a projected 7 billion by the year 2000, the quality of life on earth is seriously threatened. By helping people understand population issues, changes in the formation of their values and behavior patterns are more likely to take place. Population education and family planning are not new to home economics. Throughout its history, home economics education has been concerned with helping individuals and families cope with their environment. By making a conscious and concerted effort to integrate population education/family planning concepts into the home economics curriculum, teachers can help students of today achieve a "quality life," as well as contribute to this possibility for future generations.

This coupon worth  
**\$1.00**

when applied to an order of ten dollars or more for  
ITT-Home Economics materials (not including  
D3 and 4 below) shown in *Illinois Teacher*  
September/October 1974 pp 49-52.  
Offer Expires December 31, 1974.

This coupon entitles holder to purchase items D3 and 4  
(see *Illinois Teacher* September/October 1974 p51-52)  
at half price in quantities of ten or more  
while the supply lasts.

This coupon worth  
**\$2.50**

when applied to the purchase  
of five or more back issues  
of *Illinois Teacher* before  
December 31, 1974.  
(see list on following pages)



# OPPORTUNITY TO LEARN METRICS!

We are announcing the addition of a correspondence course to the remaining issues of this volume of the *Illinois Teacher of Home Economics*.\* The course is entitled "The Home Economics Teacher and Metrics," and it is designed to help the home economics teacher learn and teach metrics. The course contains eight lessons which will be published in the remaining 1974/75 issues of the *Illinois Teacher of Home Economics*. In addition to the final examination, evaluation will be based on completion of individual assignments. Unlike many correspondence courses, the metric course will have five lessons which involve short answers and fill-in blanks. Two lessons will have assignments which ask for brief, concise essay answers and these answers may be written, typed or taped. One lesson involves the creation of a metric teaching aid. Some of the assignments may be used with your home economics classes as well as for the requirements of this course.

The metric course is an addition to the *Illinois Teacher of Home Economics*, not a substitute for the usual articles. We hope you will enjoy this service and will take advantage of this unique form of in-service education.

## Organization of the Course

Each lesson will contain a Lesson Guide. This guide will be in the form of a checklist so the student can check off each part of the lesson as she completes it. The guide will also help the student determine her progress and find her place if she is interrupted while working on a lesson. Each guide will contain the objectives of the lesson, activities in the lesson, and ways to provide evidence of learning. Some guides will contain information about resources which are available, materials which are needed to complete the activities, and optional activities.

A text book is not required but students will be asked to purchase or construct some metric measuring tools. Additional resources will be suggested during the course and students will be expected to read metric information in available educational publications, popular magazines and newspapers.

The lessons will vary according to the subject matter and objectives. Lessons two through six will involve measurement activities and the student will be asked to fill in the blanks and provide short answers. These lessons will include answer sheets to provide immediate feedback. There will also be short pre- and post-tests included with these lessons.

Lessons one, seven and eight will be structured in a slightly different manner. The subject matter being taught in these lessons does not require the student to take measurements. The student will be developing an awareness of metrics and applying what she has learned to subject matter areas and teaching. Assignments for these lessons will involve the creation of a teaching aid and answering short essay questions.

Students with a knowledge of metrics will be able to complete the lessons more quickly than the students who have not learned or used the metric system. The entire course is designed so the average student will spend the same amount of time as she would on a two-semester hour course on campus. Completion of the course is estimated to take 64 hours. Evaluation will be based on the assignments for each lesson and the proctored final examination. The final examination is required for students taking the course for credit. Students may elect to take the course for non-credit and they are not required to take the final.

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\*The course has been prepared by Judy Oppert and has been reviewed by graduate faculty members and graduate students who have had teaching experience.

## ENROLLMENT INFORMATION

The tuition fee is \$44.00 and it can be returned with the completed assignments for the first lesson. (Make check payable to the University of Illinois.) Upon receipt of your assignments and fee we will send you a copy of the current correspondence catalog and application form. You will be officially enrolled when the University receives the completed one-page application, a copy of your student records (unless they are at the University of Illinois already) and the tuition fee (\$44.00).

The fee of \$44.00 is for your tuition and the RETURN postage of the assignments. Students are expected to pay the postage for submission of the assignments to the University. Students are also expected to pay for resources and metric tools they wish to purchase. A textbook is not required.

You may enroll for two semester hours of undergraduate credit from the University of Illinois or for non-credit. If you are enrolled in a graduate program you may wish to petition your school to accept this course for graduate credit. If you do not wish to receive credit, you can enroll and receive a certificate of completion at the end of the course.

Metres, litres, grams and degrees,  
HOW am I going to learn about these?

### COURSE TITLE: THE HOME ECONOMICS TEACHER AND METRICS

VOTEC X399 B

LESSONS: Eight (8)

CREDIT: Two (2) semester hours

COST: \$44.00

INTRODUCTION . . . . .	2
1. Why Change To Metrics? . . . . .	2
2. Length . . . . .	2
3. Area . . . . .	3
4. Volume . . . . .	3
5. Mass . . . . .	4
6. Temperature . . . . .	4
7. Application To Subject Matter Areas . . . . .	5
8. Teaching Metrics . . . . .	5
EXAMINATION REQUEST FORM . . . . .	5

### General Objectives

When the student completes the course she will:

- (1) be able to describe the trend toward metrification in the U.S. and world,
- (2) be able to discuss some of the advantages of the metric system of measurement,
- (3) have acquired some metric measuring tools and metric resources,
- (4) be able to use metric tools, metric vocabulary, and metric measuring units and prefixes to measure familiar things,
- (5) be able to think in metric units,
- (6) have developed some metric teaching aids,
- (7) use the metric system in some real life situations, and
- (8) be aware of the importance of learning the metric system of measurement.

## INTRODUCTION

How many cents are in a dollar? You did not even have to think before answering that question! You have learned our money system, which is based on powers of tens, so well that you can use it without concentrating. The metric system is also organized on powers of ten so it has many similarities to the money system which you have already learned. After you become familiar and practice with the metric system, you will find that it is much easier to use than trying to remember how many cups are in a gallon or how many feet are in a mile.

You may have already learned part of the metric system. Do you remember weighing chemical substances in grams for some of your college courses? Did you measure and record temperatures in degrees centigrade for your laboratory experiments? The metric system uses the term Celsius instead of centigrade but the concept is the same. Do you use 35 mm slide film? Do you order 8 mm or 16 mm films? You are using metric measurements!

As you work through the lessons in this course you will not only learn metrics and become familiar with resources and techniques for teaching metrics, but you will begin to "think" metric. You will know—without conversions to our present measurement system—whether a kilogram of hamburger is too much or too little meat for dinner and whether a fourteen centimetre zipper is too short or long for the dress you are making. As you learn to think metric you can help others develop this ability.

It is predicted that there will be some consumer resistance and confusion to the changes in measurement. As home economics educators we can help to educate and inform the consumers in our schools and communities and, thus, help make the change-over as smooth and brief as possible.

Some predict that the greatest obstacle to be overcome would be human resistance to change. Learning, unlearning and relearning is always a large undertaking and on a nationwide scale it would be even more momentous.\*

As home economists we can be the change-agents and educators for a nation of consumers as the inevitable change to metric measurement occurs. We can help every consumer in the U.S., and we can begin to prepare right now!

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\* Williams, Elsie K., "Purchasing Children's Clothing," in **U.S. Metric Study Interim Report: The Consumer**, Washington, D.C.: U.S. Department of Commerce, 1971, p. 79-80.]



Lesson One  
**WHY CHANGE TO METRICS?**  
Metres, litres, grams and degrees,  
WHY do I have to know about these?

The following Lesson Guide is a "map" to help you see "where you are going" and what you will be expected to do in this lesson. These are the minimum requirements. In addition some optional resources and activities are included.

**Lesson One: Study Guide**

*Place a check in the appropriate blank when an item is completed. The checks will enable you to see your progress and find your place when you are interrupted. This is your guide to keep and does NOT need to be returned for evaluation with your assignment.*

**Objectives for the lesson**

The student will:

- ☐ (1) be aware of some features of early measurement systems.
- ☐ (2) acquire some knowledge of the origin and history of the metric system.
- ☐ (3) be able to describe some of the trends toward metrification in the U.S. and world.
- ☐ (4) be able to discuss some of the advantages of the metric system of measurement.
- ☐ (5) recognize the simplicity of learning and using the metric system as compared to our present measurement system.

**Resources you may wish to acquire (Optional)**

- ☐ *An Educator's Guide To Teach Metrication*  
from: Consumer Information Services — D/703  
Sears, Roebuck and Co.  
Chicago, IL 60684
- ☐ *Going Metric* for \$.25 from:  
Channing L. Bete Co., Inc.  
45 Federal St.  
Greenfield, Mass. 01301
- ☐ "Moving Toward Metric," *Insights Into Consumerism* #84573, available free from the manager of your nearest J.C. Penney store or for \$1.25 from:  
Educational Relations  
J.C. Penney Company, Inc.  
1301 Avenue of the Americas  
New York, N.Y. 10019

**Resources you may explore (Optional)**

- ☐ *Arithmetic Teacher*, April 1973 and May 1973 issues have particularly good information on the history of measuring systems.
- ☐ Department of Commerce. *A Metric America, A Decision Whose Time Has Come*. Washington, D.C.: U.S. Superintendent of Documents. Stock No. 0303-00884, \$2.70.
- ☐ Department of Commerce. *Brief History of Measurement Systems with a Chart of the Modernized Metric System*. Washington, D.C.: U.S. Superintendent of Documents. Stock No. 0303-01073, \$.30.

— Parker, Frances J. "Think Metric: It's Simple," *American Vocational Journal*, Sept. 1973, 48(6), 35-37.

— Warning, Margaret. "Start Now to Think Metric." *Journal of Home Economics*, Dec. 1972, 64(9), 18-21.

### Activities

— Reading and answering questions on the response sheet

— Preparing a brief paper, audio tape or photos about trends toward metrification

— Beginning or continuing a file of resources and articles about metrics

— Presenting evidence of familiarity with advantages and disadvantages of the metric system of measurement (May be a brief paper, audio tape, skit, or cartoons)

— Computing a math problem in our customary units and comparing it to a problem in metric units

— Returning the response sheet, answers, and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

### Evidence of learnings

— Fulfilling the objectives

— Completing a paper, tape or photos about the trend toward metrification

— Beginning or continuing a file on metrics

— Submitting information about the advantages and disadvantages of the metric system

— Completing and returning the response sheet and answers

You will probably spend about two hours in writing assignments for this lesson. The entire lesson (reading, writing, etc.) will probably take about eight hours for the average student.

### Optional activities

— Review or investigate the legislation concerning metrics and/or views of your representatives in the legislature

— Obtain and review a set of slides or a filmstrip illustrating the early measurement system (Cooperative Extension Agents or Specialists in several states have developed slide sets on metrics.)

— Collect as many examples of the trend toward metrification in the U.S. as you can

— Talk with someone who has lived in another country which used the metric system or was in the process of converting to the system. Was it difficult to learn a new system of measurement? How long did it take to learn the new system?

NOTE: All of the above activities could be utilized in teaching others about metrics. Many of the activities in the lesson could also be adapted for teaching purposes. If you are anticipating teaching metrics, please structure the activities you do so they will also be useful in your class. The purpose of the activities is to learn. A secondary purpose may be to utilize these learnings with your students. The activities are not included as busy work or techniques to please your instructor.

## LESSON ONE

This lesson will briefly cover the following topics:

- I history of measurement systems,
- II definition of important terms,
- III trend toward metrification, and
- IV advantages and disadvantages of the metric system.

Our present measurement system is the combination of various concepts and it originated in a rather haphazard fashion. Early measurement units were based on the human body and items found in nature. The Egyptians were the first people to use a coordinated system of measuring units. If you remember the story of Noah's ark, you may recall that it was measured in cubits. A cubit is the distance from the elbow to the end of the middle finger. We seldom measure in cubits but we do use inches. An inch was defined as the length of three round, dry barleycorns from the middle of the ear laid end to end. The foot was the length of a man's foot, and a yard was the distance from the tip of King Henry the First's nose to the end of his thumb. English kings issued royal edicts which helped to standardize the measurement system. The English system of weights and measures spread throughout many parts of the world through their colonization and dominance of world commerce. This system of measurement is still called the English or customary system. Other names for the system include imperial, duo-decimal, binary, inch-pound and old.

As our country became colonized there was little uniformity of standards for weights and measures. The size of a bushel, for example, varied depending on where it was measured. Clauses in the Constitution of the United States gave power to Congress to fix uniform standards for weights and measures so there would be greater uniformity.

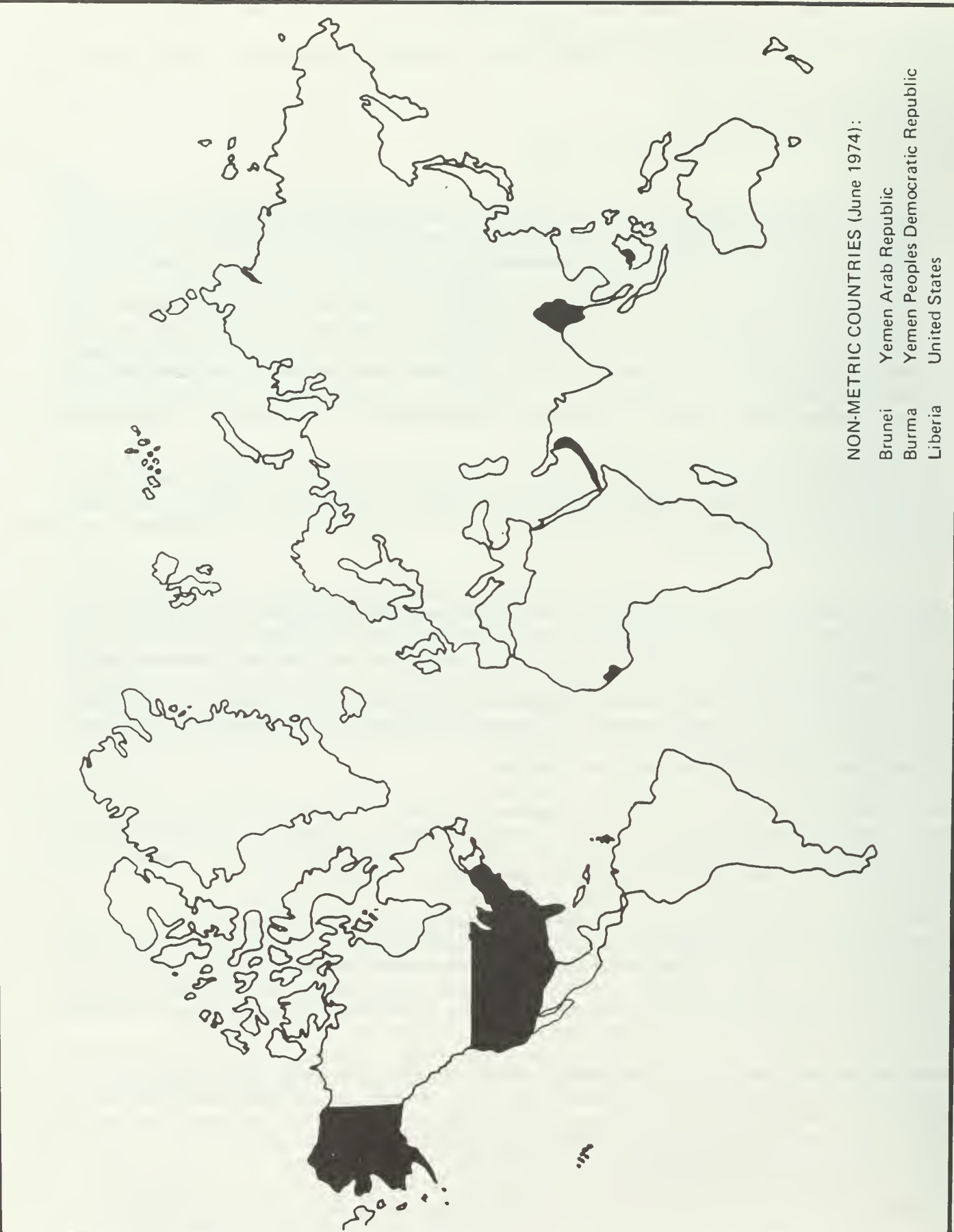
In 1790, the same year our Constitution was ratified, the National Assembly of France requested the 12 members of the French Academy of Sciences to "deduce an invariable standard for all the measures and all the weights." The units of length, volume and weight were to be related to each other and to nature. Different sizes of each unit were to be created by multiplying and dividing by powers of ten. This was the beginning of the metric system. In 1840 France made the use of the metric system compulsory. In 1866, an Act of Congress made it "lawful throughout the United States of America to employ the weights and measures of the metric system in all contracts, dealings or court proceedings." The use of the metric system became legal but not mandatory in this country. It is interesting that we use a foot-pound-quart system that has never been legalized.

Many famous men have argued for the adoption of the metric system in our country. Thomas Jefferson, George Washington and John Quincy Adams proposed the adoption of a decimal system of weights and measures to replace our cumbersome system. Later proponents of such a system included Thomas Edison, Alexander Graham Bell, George Westinghouse and Henry Ford.

In 1960 the General Conference of Weights and Measures refined the metric system and the modernized version of the system is abbreviated SI for Le Système International d'Unités. The American Home Economics Association passed a resolution to support measures that would promote the adoption of the metric system in 1967. In 1968 the Congress authorized a three year metric study which concluded that the U.S. should change to the metric system through a coordinated national program of ten years duration. Metric adoption bills have been introduced in Congress but none have passed.

Throughout the years many countries, including England, have decided to adopt the metric system. It is interesting that no nation which has adopted the metric system has abandoned it. Now only six countries, one of which is the United States, are not using or committed to the metric system. The following map shows the six non-metric countries in black.





## DEFINITIONS

*Metric system* is a simple and logical coordination of the measurements of length, area, volume, and mass into a decimalized system. The original system was developed in France and the modernized version is called the SI or International System of Units.

*Metrification* is the process of changing or converting to the metric system of measurement. (The British use the word "metrication" to describe this process.)

*Metrology* is the science of measurement.

## TREND TOWARD METRIC USAGE IN THE U.S.

The use of the metric system is increasing in the United States. More and more businesses and institutions are converting to metrics. Following are some examples.

1. The pharmaceutical industry adopted the metric system about fifteen years ago. Drugs are measured in metric units before reaching the consumer.
2. Many hospitals use the metric system for patient records and the dispensing of drugs.
3. Many doctors, dentists, and nurses use the metric system.
4. Optometry (the practice of testing the eyes for defects of vision) is metric.
5. Automobile mechanics are using metric tools to service foreign-made cars and systems (engines and transmissions) of some U.S. made automobiles.
6. Speedometers of 1975 cars produced by General Motors contain both metric and customary units.
7. Some bearings are designed and manufactured in metric units.
8. Research scientists utilize the metric system.
9. NASA scientists, engineers and technicians use the metric system.
10. The U.S. Coast and Geodetic Survey is conducted in metric units.
11. The Armed Forces use metrics for mapping and artillery control.
12. Some metric units are used to measure electric power.
13. Radio frequencies are metric.
14. The width of photographic film for slides and movies is measured in metric units.
15. Competition swimming pools and some international and Olympic track events are measured in metric units.
16. Skis are measured in centimetres.
17. Remember the cigarette that is a silly millimetre longer? (The amount of tar and nicotine are measured in metric units, too.)
18. U.S. coinage is weighed in metric units.
19. Air and water pollution are measured in metric units.
20. Companies like Sears, IBM, Honeywell, Caterpillar, and Allis-Chalmers are using the metric system in some phases of their operations.
21. Some state departments of education and individual school districts are teaching the metric system in their schools. Public schools in California are planning a complete changeover to metrics by 1976.
22. Many road signs have distances expressed in metric units. Ohio, Michigan and Alabama have some metric road signs and many other states are adding them.
23. It has been estimated that 50% of our packaged food products have labels containing both metric customary units.
24. Have you noticed the metric units on sewing patterns?

**Assignment A:** Have you been aware of the change to metric being made in the U.S. and world? Gather evidence (perhaps through readings, observations and/or interviews) of this trend. Your evidence may be presented in a brief (1 or 2 page, clearly written or typed) concise paper, an audio tape, or photographs or slides. You might gather information about the changeover in one area or company in depth, or you might look into the reasons and effects of the changeover. Other possibilities include looking at the changes in the U.S. in a historical perspective or researching the metric change process and its effects in another country. The objective of this assignment is to make you aware of the trend toward metrification.

**Assignment B:** Begin or continue a file on metrics. This file might actually be a file folder for clippings, cartoons, and copies of articles. You may wish to gather labels, measuring devices, prepared teaching aids, charts, and other articles that take more space than a file folder. In many of the lessons you will find resources suggested and you may choose to obtain copies of these. Your instructor has sent to approximately 150 companies and organizations for metric materials. Some of the materials were very good, many were not appropriate and some contained erroneous information. Some were extremely expensive. Only the best of the materials will be included in the resource section. (Some of the books and magazines may be found in libraries.)

### ADVANTAGES AND DISADVANTAGES

People in the United States have been arguing about the metric system for nearly 200 years. Some of the arguments are briefly summarized below under the topics of "Convenience and Ease of Use" and "Changeover." The advantages appear first under each topic and the disadvantages follow.

#### Convenience and Ease of Use—Advantages

- A. The metric system is simple and logical. It is based on the decimal system and this conforms to our numeration system. Our money system is also based on a decimal system.
- B. The metric system coordinates the measures of length, area, volume and mass and this facilitates computations. The system of prefixes and decimalization makes it easy to change from one unit to another.
- C. The metric system contains units that are suitable for measuring very small quantities with precision. This has made the system particularly useful for the pharmaceutical industry, optometry, and scientific research.

#### Disadvantages

- A. Our present measurement system has multiples which are frequently based on powers of 2 and 12. Twelve is divisible by 2, 3, 4, and 6—twice the number of divisors of 10.
- B. Our customary units are closely related to the human anatomy and, thus, are always convenient for estimating purposes.
- C. Metric units are too large or small for very young children to handle easily. For example, a metre is longer than a yard, there is no metric unit comparable to a foot, and the centimetre is smaller than an inch.

#### Changeover—Advantages

- A. If the metric system is adopted, many students will not have to develop a high degree of competence in the manipulation of fractions. Also, students will not be required to memorize items such as 5280 feet are equal to a mile.
- B. A common measurement language would reduce barriers between scientists, engineers, and industrial workers in our country and abroad. It would also save time and errors.
- C. A change in our measurement system would provide the opportunity to eliminate superfluous varieties in sizes of products, parts and containers, product design, and so on.



- D. Our national economy will suffer unless we can favorably compete in the world markets and maintain a favorable balance of trade. As more and more countries complete their changeovers to the metric system, goods which are not in metric sizes will become less and less desirable. Companies find it expensive to produce additional sizes of a product, keep the items separate in warehouses, and perform additional accounting procedures.
- E. We are out-of-step with the rest of the world if we stick with our customary system of measurement. Even England, where our system originated, began a conversion to metrics in 1965. People who communicate with people living in other countries or travel abroad are handicapped by not being familiar with the measurement system.

#### Disadvantages

- A. It has been predicted that the greatest obstacle to the change to the metric system would be human resistance to change. This is a psychological disadvantage and would probably be greater among the older people than the younger generation.
- B. There have been many estimates about the economic costs of a conversion to metric. The cost will depend on the way in which the changeover is made and if the items to be replaced can be removed when they are worn-out or out-dated.

(Many of the above arguments may be found in *A Metric America, A Decision Whose Time Has Come* and *Arithmetic Teacher*. See the list of "Resources you may explore" in the Study Guide.)

**Assignment C:** Do you think it would be advantageous or disadvantageous to change to the metric system of measurement? The objective of this assignment is to discuss the advantages and disadvantages of the metric system. You can complete this assignment in a number of ways. Again you might wish to do a *brief* paper or tape. Or you might choose to involve a friend, your family, or a class in a discussion, debate or role play and tape it. You should also include evidence that you prepared for the discussion, debate or role play by doing research or reading, in addition to reading the brief descriptions in this lesson. Other possibilities include writing a skit or developing cartoons. There are many more arguments for and against the metric system than have been included in this lesson. The debate has been going on for nearly 200 years in the U.S. and it has also been debated in many other countries. There are many possible approaches and many sources of information.

### MATH PROBLEMS

As home economists we are often required to use mathematics. When we use a glass baking dish it is relatively easy to subtract 25 degrees from the suggested oven temperature. But it is more difficult to add a  $\frac{5}{8}$  inch seam allowance to another fraction, or determine the amount of carpeting for a specific area. Let's pretend we need to find the area of a floor and compare the calculations with our customary units to metric units.

#### Customary

7 ft 7 inches by 5 ft 6 in.

HINT: Convert to inches and multiply to get square inches. Divide by 144 to get square feet and then divide by 9 to get square yards.

CALCULATIONS:

#### Metric

231 cm by 167 cm

HINT: Multiply to get square centimetres and divide by 10 000 (or move the decimal 4 places to the left) to get square metres.

CALCULATIONS:

Researchers have found that correspondence students who return the assignments promptly are much more likely to complete the course than students who procrastinate. We hope you will begin the lesson today and submit it promptly upon completion. Good luck!

## RESPONSE SHEET: LESSON ONE

Return this sheet for evaluation along with the other evidence of learning described in the following lesson. It is suggested that you keep a copy of the materials you prepare since the University cannot assume responsibility for assignments lost in the mail.

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_  
Votec x399 B

*Print your name and address within  
the box indicated above.*

Staple this page in the upper left-hand corner to any other papers you are sending in for evaluation. It is important that the left-hand corner of this page be lined up flush with the left-hand corner of the other papers so that your name and address will fit the window envelopes which are used for the return of the assignments.

Return the response sheet and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801. Include your return address, the answers to the questions below, the assignments, questionnaire and tuition fee of \$44.00. [Make the check payable to the University of Illinois.] Place the correct amount of postage on the envelope. Otherwise, we must pay the postage due and ask you to repay us. [We pay the postage on graded lessons returned to you.]

### QUESTIONS

The following questions refer to the information presented in the preceding lesson. Please type or clearly write your answers on another sheet of paper and return it with the assignments, questionnaire and fee.

1. What were the standards for three of our measurement units.
2. Why weren't these standards satisfactory?
3. How old is the metric system?
4. After France made the metric system compulsory many other countries adopted it. Why do you think so many other countries adopted it?
5. What is SI?
6. Which problem, customary or metric, was easier to calculate? Why?
7. Do you think it is necessary for the U.S. to change the majority of our weights and measures to the metric system? Why or why not?

**Assignment A:** Include your paper, tape, or slides or photographs with the response sheet

**Assignment B:** Do Not send your metric file! Please answer the following questions.

(1) Had you collected metric information before you started this course? If yes, please explain briefly.

(2) Are you having difficulty finding metric materials?

**Assignment C:** Include your paper, tape or other form of the assignment.

*Please add additional comments if you desire.*

*Don't forget to complete the questionnaire on the next pages. Include it with your answers to the questions, assignments, check, and response sheet. We are looking forward to hearing from you!*



Dear Home Economics Teacher,


We are trying out a new way of offering in-service education for teachers, and we are interested in finding out some of the factors related to teacher participation in this activity. We believe this is the first time a correspondence course has been made available in a professional journal.

The information obtained from the following questionnaire will be kept strictly anonymous and confidential. It is important that you return the following questionnaire with your first assignment so we know that each participant has returned a questionnaire. Upon receipt of your questionnaire it will be separated from your assignment and become anonymous.

We have attempted to make the questions as easy to answer as possible and the pilot study indicates it will only take a few minutes to complete this questionnaire. We appreciate your cooperation in this new venture. Thank you!



Hazel Taylor Spitze  
Editor  
*Illinois Teacher of Home Economics*



Judy Oppert  
Instructor for the Course

## CORRESPONDENCE COURSE STUDY

(Circle one code number for each question unless otherwise instructed.)

1. How important was each of the following factors in your decision to enroll in the metric correspondence course?  
(Circle one code number for each statement.)

	<u>Of great importance</u>	<u>Of some importance</u>	<u>Of little importance</u>	<u>Of no importance</u>
a. Increasing need for knowledge of the metric system . . . . .	4	3	2	1
b. Interest in metrics . . . . .	4	3	2	1
c. Few persons in your school have a knowledge of metrics . . . . .	4	3	2	1
d. Share information with others and serve as a resource person . . . . .	4	3	2	1
e. Teach more effectively . . . . .	4	3	2	1
f. Attain transferable college credit toward a degree . . . . .	4	3	2	1
g. Course work needed to advance on salary schedule . . . . .	4	3	2	1
h. Course work needed for renewal of teaching certificate or professional ad- vancement . . . . .	4	3	2	1
i. Course work needed for updating . . . . .	4	3	2	1
j. Quest for knowledge . . . . .	4	3	2	1
k. Personal improvement . . . . .	4	3	2	1
l. Recommendation of someone whose opinion you value . . . . .	4	3	2	1
m. Flexible time schedule of course . . . . .	4	3	2	1
n. General quality of instruction in cor- respondence study . . . . .	4	3	2	1
o. Cost . . . . .	4	3	2	1
p. No other course available . . . . .	4	3	2	1

2. What other factors were important in your decision to enroll in the metric correspondence course?

(Specify) \_\_\_\_\_

3a. Are you able to attend regular university or college classes at the present time? (Please answer even if you are presently enrolled in a class.)

Yes (Skip to Question 4) . . . . . 1  
No . . . . . 2

(If No)

b. Which of the following items make it impossible for you to attend classes? (Circle all that apply.)

Family responsibilities . . . . . 1  
Employment responsibilities . . . . . 2  
Courses offered at inconvenient time . . . . . 3  
Geographic location . . . . . 4  
Financial cost of enrollment . . . . . 5  
Health . . . . . 6  
No intention of obtaining a degree . . . . . 7  
Course work not needed . . . . . 8

Other (Specify) \_\_\_\_\_

4. How strongly do you agree or disagree with each of the following?

A correspondence course offered in a professional journal is likely to be: (Circle one number for each adjective.)

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
a. Flexible . . . . . 5	4	3	2	1	
b. Impersonal . . . . . 5	4	3	2	1	
c. Difficult . . . . . 5	4	3	2	1	
d. Convenient . . . . . 5	4	3	2	1	
e. Professional . . . . . 5	4	3	2	1	
f. Time consuming . . . . . 5	4	3	2	1	
g. Expensive . . . . . 5	4	3	2	1	
h. Organized . . . . . 5	4	3	2	1	
i. Worthwhile . . . . . 5	4	3	2	1	
j. Disparaging . . . . . 5	4	3	2	1	

5. In general, how do you think your friends and colleagues feel about correspondence courses?

Very positive . . . . . 5  
Positive . . . . . 4  
Neutral . . . . . 3  
Negative . . . . . 2  
Very negative . . . . . 1

6. Would you enroll in a correspondence course if it were offered for undergraduate credit?

Definitely yes . . . . . 5  
Maybe . . . . . 4  
Undecided . . . . . 3  
Doubtful . . . . . 2  
Definitely no . . . . . 1

7. Would you enroll in a correspondence course if it were offered for graduate credit?

Definitely yes . . . . . 5  
Maybe . . . . . 4  
Undecided . . . . . 3  
Doubtful . . . . . 2  
Definitely no . . . . . 1



8a. Have you ever enrolled in a correspondence course before this one?

Yes . . . . . 1  
No (Skip to Question 9) . . . . . 2

b. List the title of each course in which you enrolled on the chart below.

c. Circle the number indicating the type of credit offered for each course.

Title of Course	Graduate credit	Undergraduate credit	High School credit	Non-credit
(1) _____	4	3	2	1
(2) _____	4	3	2	1
(3) _____	4	3	2	1
(4) _____	4	3	2	1

d. How many of the above courses did you complete? \_\_\_\_\_

9. What is the highest level of education you have completed? (Circle one.)

Some college . . . . . 1  
B.A. or B.S. degree . . . . . 2  
M.A., M.S. or M.Ed. degree . . . . . 3  
Six year degree . . . . . 4  
Ph.D. or Ed.D. degree . . . . . 5

10a. Do you have a college or university degree in home economics education?

Yes (Skip to Question 11) . . . . . 1  
No . . . . . 2

(If No)

b. What was your college major?

\_\_\_\_\_

11a. Are you a home economics teacher?

Yes (Skip to Question 12) . . . . . 1  
No . . . . . 2

(If No)

b. What is your job title? \_\_\_\_\_  
(Skip to Question 14)

12. How many teachers are in your home economics department?

\_\_\_\_\_ teachers

13. How many years have you been teaching, including this year?

\_\_\_\_\_ years

14. To what organizations do you belong? (Circle all that apply.)

- American Home Economics Association (AHEA) . . . . . 1  
State Home Economics Association . . . . . 2  
Local Home Economics Association . . . . . 3  
American Vocational Association . . . . . 4  
State Vocational Association . . . . . 5  
State Vocational Home Economics Association . . . . . 6  
National Education Association (NEA) . . . . . 7  
Home Economics Education Association (HEEA) of NEA . . . . . 8  
State Education Association . . . . . 9  
Local Education Association . . . . . 10  
Local Home Economics Teachers Organization . . . . . 11  
American Federation of Teachers or United Federation  
of Teachers . . . . . 12  
Parent Teacher Association (PTA) . . . . . 13  
Other professional organizations (Specify name, NOT initials):
- 
- 

15. What is your sex?

- Female . . . . . 1  
Male . . . . . 2

16. What is your marital status?

- Married . . . . . 1  
Divorced . . . . . 2  
Widowed . . . . . 3  
Separated . . . . . 4  
Never married . . . . . 5

17. How many children or other dependents do you have living with you?

- None (Skip to Question 18) . . . . . 1  
1 or more . . . . . 2

(If 1 or more)

Number of children and dependents living with you

- b. 0—4 years old . . . . . \_\_\_\_\_ children  
c. 5—11 years old . . . . . \_\_\_\_\_ children  
d. 12—14 years old . . . . . \_\_\_\_\_ children  
e. 15 years and older . . . . . \_\_\_\_\_ children  
f. other dependents . . . . . \_\_\_\_\_ dependents

18. What year were you born? \_\_\_\_\_

*Please write any additional comments below which you think would be important in understanding your responses.  
Return this questionnaire with the assignments for lesson one.*

THANK YOU!

## Lesson Two

### LENGTH

Metres, litres, grams and degrees,  
WHAT am I going to learn about these?

#### Lesson Two: Study Guide

*Place a check in the appropriate blank when an item is completed.*

\_\_\_ Pretest

#### Objectives for the Lesson

- \_\_\_ 1. The student will acquire or make a metre stick, centimetre ruler and centimetre tape measure.
- \_\_\_ 2. The student will measure familiar things with the above tools and be able to judge which tool and metric unit is appropriate for a given situation.
- \_\_\_ 3. The student will learn the terms metre, centimetre, millimetre and kilometre; the amounts they refer to; and their symbols.
- \_\_\_ 4. The student will be able to define the meaning of different prefixes used in measuring length.
- \_\_\_ 5. The student will begin estimating lengths in metric units.
- \_\_\_ 6. The student will be able to indicate the equivalent metric units for the measuring units in our customary system.

#### Materials needed

- \_\_\_ Metre stick or plywood stick one(1) metre long
- \_\_\_ Centimetre ruler or cardboard strip
- \_\_\_ Centimetre tape measure or twill tape
- \_\_\_ Masking tape

#### Resources you may wish to acquire (Optional)

- \_\_\_ Metre stick (75c), Measuring tape (50c), 10 rulers (\$2.00), from:  
Ideal School Supply Company  
11000 South Laverne Avenue  
Oak Lawn, Illinois 60453
- \_\_\_ Measuring tape (25c), 12 rulers (\$1.00), from:  
Selective Educational Equipment (see), Inc.  
3 Bridge Street  
Newton, MA. 02195
- \_\_\_ Metre stick (90c), 10 measuring tapes (\$1.70), 10 rulers (\$1.70), from:  
Spectrum Educational Supplies Limited  
9 Dohme Avenue  
Toronto, Ontario, M4B 1Y7



- Kits and quantities of metric tools, from:  
Dick Blick  
P.O. Box 1267  
Galesburg, IL 61401

#### Activities

- Acquiring or making a metre stick
- Measuring and estimating distances in metres
- Acquiring or making a centimetre ruler and tape measure
- Measuring and estimating distances in centimetres
- Measuring and estimating distances in millimetres
- Estimating distances in kilometres
- Filling in blanks and answering questions on the response sheets
- Returning the response sheets to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

#### Evidence of learnings

- Fulfilling the objectives
- Having a metre stick, centimetre ruler and centimetre tape measure
- Completing and returning the response sheet
- Post test

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson in one session. All of the activities above will probably take no longer than eight hours for the student who is not familiar with metric measurements. The student with a knowledge of the metric system will find this lesson can be completed in a much shorter time.

#### Optional activities

- Research the meaning of metre.
- Measure off metric distances in your surroundings and put up "road signs" indicating the distances to other people.
- Encourage your students and family to measure their height in metric units.
- Investigate the use of metric units in athletic events.

## PRETEST

### Lesson Two

*The following questions will acquaint you with the material covered in lesson two. It is not expected that you will know the answers now and this test will NOT be used for your evaluation. Thinking about the questions now will introduce you to the concepts and help you recognize the important ideas when they appear in the lesson.*

*Write the letter indicating the correct answer for each statement on the response sheet. You will find the answers as you work on the lesson.*

1. The metre is a measure of
  - a. weight
  - b. length
  - c. volume
  - d. time
2. A metre equals 100
  - a. kl
  - b. mm
  - c. km
  - d. cm
3. The correct symbol for metre is
  - a. m
  - b. M
  - c. m.
  - d. Mm
4. The prefix centi- means
  - a. 100
  - b. 10
  - c. 1/10
  - d. 1/100
5. Which of the following lines appears to be equal to two centimetres?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
6. The smallest of the following units is
  - a. centimetre
  - b. millimetre
  - c. metre
  - d. kilometre
7. The largest of the following units is
  - a. centimetre
  - b. millimetre
  - c. metre
  - d. kilometre
8. In place of inches what metric term will be used to measure similar distances?
  - a. centimetre
  - b. litre
  - c. metre
  - d. kilometre
9. A basketball player would be approximately how tall?
  - a. 2 kilometres
  - b. 2 metres
  - c. 1 metre
  - d. 10 centimetres
10. The length of a new pencil would be approximately
  - a. 8 millimetres
  - b. 8 kilometres
  - c. 18 centilitres
  - d. 18 centimetres

## RESPONSE SHEET: LESSON TWO

*The following lesson contains a number of questions followed by blanks with numbers. The answers are to be written on THIS sheet by the corresponding number. These response sheets are to be returned to your instructor. It is suggested that you keep a copy of these sheets since the University cannot assume responsibility for assignments lost in the mail. HINT: If you do not wish to remove these pages from the journal, they can be duplicated with the aid of a copy machine.*

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_

Votec x399 B

*Print your name and address within  
the box indicated above.*

*The post test will be evaluated but the answers to the pretest and questions in the lesson will not be used to influence your final grade. The instructor uses the response sheet to find concepts that may not have been clear or items you may have misunderstood or are having trouble learning. You will find an answer sheet at the end of the lesson which will provide immediate feedback for many of the questions. It does not contain the answers for the pretest or post test. Please add additional comments if you desire.*

### PRETEST

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 9. _____  | 30. _____ |
| 2. _____  | 10. _____ | 31. _____ |
| 3. _____  | 11. _____ | 32. _____ |
| 4. _____  | 12. _____ | 33. _____ |
| 5. _____  | 13. _____ | 34. _____ |
| 6. _____  | 14. _____ | 35. _____ |
| 7. _____  | 15. _____ | 36. _____ |
| 8. _____  | 16. _____ | 37. _____ |
| 9. _____  | 17. _____ | 38. _____ |
| 10. _____ | 18. _____ | 39. _____ |
|           | 19. _____ | 40. _____ |
| * * * *   | 20. _____ | 41. _____ |
|           | 21. _____ | 42. _____ |
| 1. _____  | 22. _____ | 43. _____ |
| 2. _____  | 23. _____ | 44. _____ |
| 3. _____  | 24. _____ | 45. _____ |
| 4. _____  | 25. _____ | 46. _____ |
| 5. _____  | 26. _____ | 47. _____ |
| 6. _____  | 27. _____ | 48. _____ |
| 7. _____  | 28. _____ | 49. _____ |
| 8. _____  | 29. _____ | 50. _____ |



51. \_\_\_\_\_ 52. \_\_\_\_\_ 53-54. \_\_\_\_\_
55. \_\_\_\_\_ 56. \_\_\_\_\_ 57-58. \_\_\_\_\_
59. \_\_\_\_\_ 60. \_\_\_\_\_ 61-62. \_\_\_\_\_
63. \_\_\_\_\_ 64. \_\_\_\_\_ 65-66. \_\_\_\_\_
67. \_\_\_\_\_ 68. \_\_\_\_\_ 69-70. \_\_\_\_\_
71. \_\_\_\_\_ 72. \_\_\_\_\_ 73-74. \_\_\_\_\_
75. \_\_\_\_\_
76. \_\_\_\_\_
77. \_\_\_\_\_
78. \_\_\_\_\_
79. \_\_\_\_\_
80. \_\_\_\_\_
81. \_\_\_\_\_
82. \_\_\_\_\_
83. \_\_\_\_\_
84. \_\_\_\_\_
85. \_\_\_\_\_
86. \_\_\_\_\_
87. \_\_\_\_\_
88. \_\_\_\_\_
89. \_\_\_\_\_

\* \* \* \*

#### POST TEST

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_
9. \_\_\_\_\_ 10. \_\_\_\_\_ 11. \_\_\_\_\_ 12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_

*Return the four (4) response sheets and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801. Include your return address, and place the correct amount of postage on the envelope. Otherwise, we must pay the postage due and ask you to repay us. (We pay the postage on graded lessons returned to you.)*

*Congratulations on completing the first two lessons of the course! The next two lessons will be in issue number three.*

## LESSON TWO

This lesson will cover the following units:

- I Metre
- II Centimetre
- III Millimetre
- IV Kilometre

As in Lesson One, the Lesson Guide contains the objectives, activities, and ways to provide evidence of learnings. In addition, there is information about resources and optional activities. The lesson guide does not need to be returned for evaluation with your assignment.

When we measure the distance from one city to another, the height of a window, or the size of a cake pan, we need appropriate measuring tools and measuring units. Our measuring tools and units need to be the same as those used by the people with whom we are working or we would not be able to communicate easily. For instance, if the recipe directions said to use a pan measuring three sticks by five sticks, many people attempting to use the recipe would be puzzled and frustrated. Each person making the recipe would need to know the length of the stick used as a reference in order to obtain uniform results.

### METRE

Likewise, we each need to know the length referred to in the measurement system we are using. In the metric system the basic unit of length is the metre. A metre is used to measure (Write your answer on the response sheet.)

\_\_\_\_\_(1)\_\_\_\_.

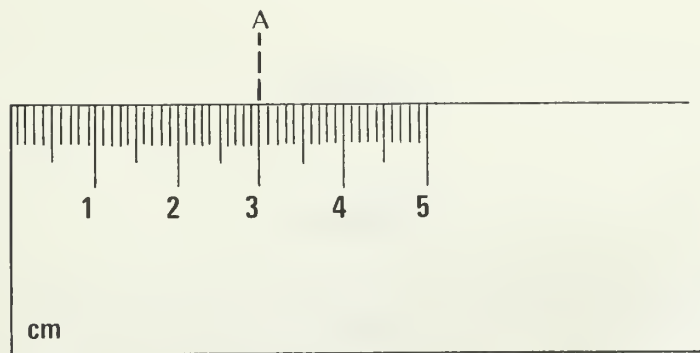
You may be wondering about the spelling of the word metre. Some people spell it meter. The metric system is heavily founded on European customs of spelling and the other English speaking nations are using the -re spelling. Many large organizations are also using the -re spelling because this enables them to distribute materials to people in many countries without printing a separate set of materials for the U.S. As increasing numbers of organizations have begun to utilize the metric system, the use of the -re spelling has increased. The -re spelling will be used in the lessons in an attempt to be consistent and work toward worldwide uniformity.

Do you have a metre stick now?

\_\_\_\_\_(2)\_\_\_\_.

If you do not have a metre stick now you may send for one (see Lesson Guide, "Resources you may wish to acquire") or make one. Why not make a metre stick for yourself? Later your students can make their own metre sticks. All you need are scrap pieces of wood (minimum length 40 inches), access to a power saw and a borrowed metre stick or centimetre ruler to use as a reference and guide. If you are not skilled in operating the power saw the industrial arts teacher or an employee at the lumber company can cut a strip (or strips) of wood for you the approximate width of a yardstick. Then use the borrowed metre stick or centimetre ruler to mark off the subdivisions on one side of the stick with a very sharp pencil. The cost of metre sticks is nominal and they may be used in a variety of ways.

When you look at your centimetre ruler or metre stick you may see markings similar to those on the drawing following. The numbers on this drawing indicate the number of centimetres. For example, point A is three centimetres from the left end of the ruler. There are a total of 100 centimetres on a metre stick.



Using your metre stick, measure the following lengths to the nearest whole metre.

Length of a room in your house or the room you are in now

= (3) m

Width of a room in your house or the room you are in now

= (4) m

Distance from the floor to the bottom of the window

= (5) m

Height of the window

= (6) m

Did you notice the answer on the answer sheet for number 6? The comma was not an error. The metric system uses a comma instead of a period to indicate the placement of the decimal point. Decimals are used instead of fractions. Therefore, the instructor's answer was 1,5 – NOT  $1\frac{1}{2}$  or 1.5.

Width of the door

= (7) m

Name of an item that is approximately 3 metres long

= (8) m

Name of an item that is approximately 2 metres long

= (9) m

Name of an item that is approximately 1 metre in length

= (10) m

The symbol m follows each of the above answer blanks. This is the symbol for the metric unit of measurement called the metre. This symbol is consistent around the world. It is always written in lower case without any punctuation.



The symbol for metre is

\_\_\_\_\_ (11)

Is it followed by a period?

\_\_\_\_\_ (12)

Is the symbol capitalized?

\_\_\_\_\_ (13)

A pace or a stride is a convenient way to estimate distance. Using the metre stick and masking tape, mark off the distance of one metre on an uncarpeted floor. Now mark off three metres from this one so you can take four strides, each one metre long. Practice pacing it off until you get the feel of a one metre stride. Is this size stride comfortable for you?

\_\_\_\_\_ (14)

Do you think a metre stride is longer or shorter than a yard stride?

\_\_\_\_\_ (15)

Compare the metre stick and yard stick. Which is longer?

\_\_\_\_\_ (16)

Using your new metre stride, walk down the nearest hallway and estimate its length in metres. Re-check your estimate on the way back. The estimated length of the nearest hallway is

= \_\_\_\_\_ (17) m

### CENTIMETRE

A metre is not practical for measuring the length of small items. The metre is not convenient for measuring the pan in the recipe we talked about earlier. So we need to divide the metre into smaller portions. Is your metre stick divided into smaller portions?

\_\_\_\_\_ (18)

If so, how many?

\_\_\_\_\_ (19)

Many of you will find your metre stick divided into 100 smaller units. We add a prefix to the word metre to indicate these 100 divisions. We use this prefix when we talk about a 100th anniversary (centennial) and 100 cents in a dollar. The prefix that indicates division of a unit by 100 is

\_\_\_\_\_ (20)

Combining the prefix with the word, metre, we have a new word which is

\_\_\_\_\_ (21)

One metre equals

(22) cm

Do you have a centimetre ruler?

(23)

Students can make their own rulers by carefully transferring the markings from another ruler with a sharp pencil to a cardboard strip. A number of publications have centimetre scales which may be cut out or duplicated but be careful! Some of these scales have been distorted in printing and no longer measure a centimetre accurately.

Compare your centimetre ruler with your metre stick. Are the size of the centimetres on each tool equal?

(24)

How many centimetre rulers would you need to equal a metre stick?

(25)

Some metric measuring tools are divided into decimetre sections, or 1/10 of a metre, but this unit is seldom used. Therefore, you are not being encouraged to use decimetres or purchase measuring tools divided only into decimetres.

Using your centimetre ruler to measure, fill in the following blanks with the number of centimetres or the name of an appropriate item.

Width of a slice of bread = (26) cm

Length of your pencil = (27) cm

Length of a paper clip = (28) cm

The thickness of a book = (29) cm

The length of your little finger = (30) cm

Name of an item that is approximately 15 centimetres long

= (31)

Name of an item that is approximately 10 centimetres long

= (32)

Name of an item that is approximately 5 centimetres long

= (33)

The symbol for the centimetre follows the same principles as the symbol for the metre. The symbol for centimetre is

(34)

Is it followed by a period?

(35)

Is the symbol capitalized?

\_\_\_\_ (36) \_\_\_\_

### MILLIMETRE

The metre can be divided into even smaller units. Film for slides and movies is usually measured in these units. When we order films we specify 8 or 16 (What are the units?)

\_\_\_\_ (37) \_\_\_\_ film.

Millimetres refer to the small divisions on the centimetre ruler. Each centimetre contains

\_\_\_\_ (38) \_\_\_\_ mm

There are 10 millimetres in each of the 100 divisions on the metre stick.  $10 \times 100 =$

\_\_\_\_ (39) \_\_\_\_ millimetres in a metre.

If you think of MILL as meaning a thousandth of a dollar (in tax computation) it is easier to remember that the prefix milli- means

\_\_\_\_ (40) \_\_\_\_

Like the prefix centi-, this prefix refers to divisions of the metre.

Using your centimetre ruler to measure, find the appropriate number of millimetres for the following blanks.

Thickness of a nickel = \_\_\_\_ (41) \_\_\_\_ mm

Diameter of an aspirin or other small pill = \_\_\_\_ (42) \_\_\_\_ mm

Diameter of a hole in the telephone dial \* = \_\_\_\_ (43) \_\_\_\_ mm

Length of a key = \_\_\_\_ (44) \_\_\_\_ mm

Length of your pencil = \_\_\_\_ (45) \_\_\_\_ mm

(The symbol for the millimetre follows the same principles as the symbol for the metre and centimetre.)

Sometimes we need to measure objects that have more than one dimension. One measuring tool that is helpful in these situations is the centimetre tape measure. Do you have a centimetre tape measure that is longer than a metre?

\_\_\_\_ (46) \_\_\_\_

In addition to looking for a good quality tape measure the consumer also needs to check the measuring units and total length. Some tapes are divided into decimetres and these are seldom used. Other tapes are the length of a metre, and this is too short to measure the width of many fabrics, etc.

Students could make metric tapes by choosing twill tape that doesn't stretch and making a pencil mark on the tape at every centimetre. Colored pencil marks could be used for every tenth centimetre to simplify counting.

Measure your waist with the tape measure. Compared to your "old" measurements, did the size of the numbers increase or decrease? (Note the type of metric units you used.)

\_\_\_\_ (47) \_\_\_\_



Now take your bust and hip measurement. It's a good idea to write these down. You may be looking for them on the back of a pattern envelope or on a clothing hangtag sooner than you expect. Be sure to note the units of measurement you used.

Now find a convenient spot to measure your height in metric units. (You may want to use the masking tape and attach a piece of paper to a door or wall.) What is the most appropriate measuring tool you have to measure this distance?

\_\_\_\_\_ (48) \_\_\_\_\_

Why? \_\_\_\_\_ (49) \_\_\_\_\_

How tall are you? \_\_\_\_\_ (50) \_\_\_\_\_

So far we have measured in units of metres, centimetres, and millimetres. Measure some items you would consider small, medium, and large, and use each of the units we have covered this far in the lesson. Record the information on the chart below.

SMALL ITEMS (NAME)	MEASURING TOOL	NUMBER OR LENGTH and MEASURING UNITS	
_____ (51) _____	_____ (52) _____	_____ (53) _____	_____ (54) _____
_____ (55) _____	_____ (56) _____	_____ (57) _____	_____ (58) _____
MEDIUM ITEMS			
_____ (59) _____	_____ (60) _____	_____ (61) _____	_____ (62) _____
_____ (63) _____	_____ (64) _____	_____ (65) _____	_____ (66) _____
LARGE ITEMS			
_____ (67) _____	_____ (68) _____	_____ (69) _____	_____ (70) _____
_____ (71) _____	_____ (72) _____	_____ (73) _____	_____ (74) _____

### KILOMETRE

We have been measuring small and intermediate distances. If we were going for a drive, the metre unit of length would be too small to be of much value. Therefore, we multiply it by 1000 and add a new prefix. (This is the OPPOSITE of dividing by 1000 to get millimetres.) When you think of electricity do you remember kilowatts? A kilowatt is equal to 1000 watts. Likewise, 1000 metres is a kilometre. Are kilometres smaller or larger than metres?

\_\_\_\_\_ (75) \_\_\_\_\_

Are millimetres larger or smaller than metres?

\_\_\_\_\_ (76) \_\_\_\_\_

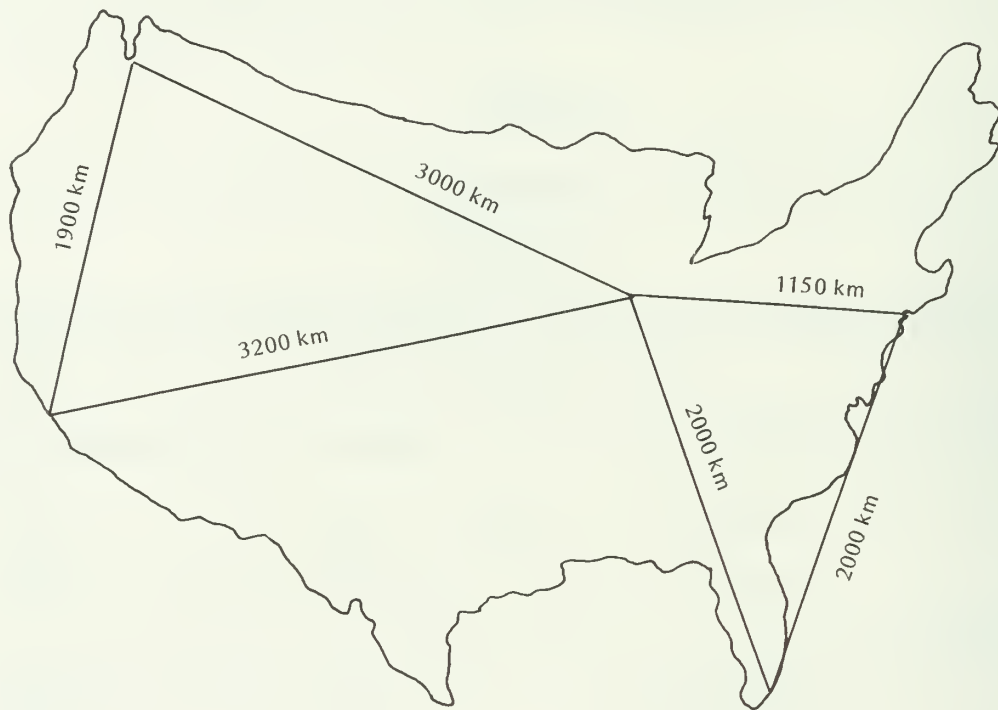
Are centimetres larger or smaller than metres?

\_\_\_\_\_ (77) \_\_\_\_\_

Kilometre is pronounced KILL-oh-meet-ur. Try saying it aloud.

A kilometre contains (78) metres.

The following map contains approximate distances between major cities. The distances are measured in kilometres and “rounded” off. Have you ever traveled these distances? If you compare the distances with miles you will find that a kilometre is slightly more than half a mile.



In metric units, how far is it from Los Angeles to Chicago?

(79) km

If we traveled from Los Angeles to Chicago at an average speed of 50 miles per hour, our equivalent speed in metric units would be 80 kilometres per hour. How many hours would it take us to travel from Los Angeles to Chicago?

(80) hours

Try calculating the time it would take to travel to other cities on the map.

The symbol for kilometres is similar to other metric symbols in this lesson. What do you think the symbol is?

(81)

Why?

(82)

### REVIEW AND APPLICATION

Metric length is measured in metres.

1 kilometre (km)	= 1000 metres (m)
1 centimetre (cm)	= 0.01 metre
1 millimetre (mm)	= 0.001 metre

0.001 kilometre	= 1 metre
100 centimetres	= 1 metre
1000 millimetres	= 1 metre

Short and intermediate lengths can be measured with a metre stick, centimetre ruler and centimetre tape measure.

When measuring in the metric system we would use (83) instead of inches. Instead of yards we would use (84) and instead of miles we would use (85).

Would a six-year old girl be approximately 1, 2 or 3 metres tall?  
(86)

Would fabric which measured 36-inches wide be less than a metre wide, the same width as a metre, or wider than a metre?  
(87)

Would the width of your little fingernail be approximately equal to 1 mm, 1 cm, or 5 cm?  
(88)

Would the width of a head of a pin be equal to 1 mm, 1 cm, or 5 cm?  
(89)

Would the length of a mile track be approximately equal to 200 m, 1 km, or 2 km?  
(90)

Skill in "thinking metric" increases with practice and decreases with disuse. Set a goal to estimate five distances every day in metric units and to measure at least five items a week in metric units. You can use the time you spend waiting for appointments, traveling, washing dishes, etc., to do the estimating. The important thing is to practice every day. By the time the next issue of the *Illinois Teacher of Home Economics* arrives, you will have developed the skill of estimating metric lengths. You will be beginning to "think metric!"

### POST TEST

*Write the letter indicating the correct answer for each statement, without looking back at your lesson, on the response sheet. The answer sheet does not include the answers for these questions.*

1. The metre is a measure of
  - a. weight
  - b. length
  - c. volume
  - d. time
2. A metre stick would be used to measure
  - a. distance between cities
  - b. height of a book
  - c. length of a table
  - d. your waist



3. In place of inches what metric term will be used to measure similar distances?
  - a. centimetre
  - b. litre
  - c. metre
  - d. kilometre
4. A metre equals 100
  - a. kl
  - b. mm
  - c. km
  - d. cm
5. The correct symbol for millimetre is
  - a. Mm
  - b. Mm.
  - c. mm
  - d. mm.
6. The prefix kilo- means
  - a. 1000
  - b. 100
  - c. 10
  - d. 1/100
7. The prefix milli- means
  - a. 1000
  - b. 100
  - c. 1/100
  - d. 1/1000
8. The prefix centi- means
  - a. 1000
  - b. 100
  - c. 1/100
  - d. 1/1000
9. The length of a dining room wall might measure
  - a. 4 l
  - b. 40 m
  - c. 4 m
  - d. 4 mm
10. The length of a zipper for a dress might measure
  - a. 35 mm
  - b. 35 cm
  - c. 3,5 cm
  - d. 3,5 m
11. The diameter of a nickel is approximately
  - a. 2,1 m
  - b. 2, 1 mm
  - c. 21 mm
  - d. 21 cm
12. Two cities are approximately 20 miles apart. The equivalent metric measurement is
  - a. 8 km
  - b. 35 km
  - c. 3500 m
  - d. 8000 dm
13. Which of the following lines appears to be equal to two centimetres?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
14. The diameter of the wire in a paper clip is approximately
  - a. 1 cm
  - b. 1 ml
  - c. 1 m
  - d. 1 mm
15. A metre is
  - a. slightly shorter than a yard
  - b. the same length as a yard
  - c. slightly longer than a yard
  - d. approximately twice the length of a yard

*Don't forget to write your answers on the response sheets under "Post Test." When you have completed this and sent the response sheets to the instructor, you have completed the first two lessons. Congratulations!*

## ANSWER SHEET

1. length (distance, height, width)
2. yes or no

The following answers (3-10) refer to the instructor's surroundings. Your answers will probably be similar.

3. 5
4. 4
5. 1
6. 1,5
7. 1
8. length of large dining table, sofa or rug
9. height of door, length of bed
10. height of counters
11. m
12. no
13. no
14. probably not
15. longer
16. metre stick
17. ----
18. yes
19. 100 (10 or 1000 perhaps)
20. centi-
21. centimetre
22. 100
23. yes
24. yes (if both tools are accurate)
25.  $\frac{100}{\text{number of cm on ruler}}$  i.e.  $\frac{100}{20} = 5$ ,  $\frac{100}{25} = 4$ .

The following answers (26-33) refer to the instructor's surroundings. Your answers will probably be similar.

26. 1
27. 17
28. 3,5
29. 3
30. 6
31. height of a glass
32. height of a flower pot
33. diameter or width of a spice jar

34. cm
35. no
36. no
37. millimetre
38. 10
39. 1000
40. 1/1000 or .001

The following answers (41-45) refer to the instructor's surroundings. Your answers will probably be similar.

41. 2
42. 10
43. 13
44. 55
45. 169
46. yes or no
47. increase! That happens when you convert to centimetres from inches.
48. metre stick
49. The distance to be measured is straight.
- 50-74. You are on your own.
75. larger
76. smaller
77. smaller
78. 1000
79. 3200
80. 40
81. km
82. It follows the same pattern as the other symbols and, therefore, it does not have a period and is not capitalized.
83. centimetres
84. metres
85. kilometres
86. 1
87. less than a metre
88. 1 cm
89. 1 mm
90. 2 km

CONGRATULATIONS!

Volume XVI, 1972-73 Humaneness and Home Economics in the  
Secondary School

- \_\_\_\_\_ No. 1 Nutrition Education for Increased Humaneness (a,i,)
- \_\_\_\_\_ No. 2 Consumer Education and the Quality of Life; Drug Education;  
Legal Aid; Ecology; Nutrition (b,f,)
- \_\_\_\_\_ No. 3 The Family in Today's Society; Occupational Program in  
Child Development; Drug Abuse Prevention; Urban Communes;  
Toys for Consumers (e,g,h)
- \_\_\_\_\_ No. 4 The Liberated Family; Women's Rights Movement and VOTEC  
Education (g)
- \_\_\_\_\_ No. 5 Career Selection as a Humanizing Experience (e)

Volume XVII, 1973-74 Reaching All Minorities Through Home Economics

- \_\_\_\_\_ No. 1 Capitalizing on Interest in Children (f,c,i)
- \_\_\_\_\_ No. 2 Exploring Careers in the Junior High School (e,i)
- \_\_\_\_\_ No. 3 Better Health Through Better Nutrition (a,b,i)
- \_\_\_\_\_ No. 4 Housing--Designing for People's Needs (h,e,c,b)
- \_\_\_\_\_ No. 5 Better Management and Improved Consumer Education  
for All Ages (b,h)

- (a) nutrition education
- (b) consumer education
- (c) teaching the disadvantaged
- (d) slow readers
- (e) career education in home economics
- (f) textiles and clothing
- (g) child and family
- (h) housing and money management
- (i) individualizing instruction

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# ILLINOIS TEACHER OF HOME ECONOMICS

## NEW FACES AND PLACES FOR HOME ECONOMICS

Serving All Ages

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## Foreword

With this issue of ILLINOIS TEACHER we continue our theme, New Faces and Places for Home Economics, and our correspondence course in metrics. We are also introducing Letters to the Editor (we welcome yours!) and a removable bulletin board idea in the center of the journal. We solicit your reactions and your ideas.

One group of faces that ought not to be new, but one that we have not served as well as we might, is the aging. Wolf and Whatley direct our attention to some of their needs in this issue.

Several articles deal with the other end of the age continuum, those below high school age. Sickler describes the work of a home economics consultant-teacher in the elementary school. Duncan tells us about her work with an obese pre-teen boy, Beckett and Vick describe an unusual eighth grade class in "life education", and Bagby and LaRue share their library displays which help develop the self concept and extend the knowledge of those in K to 3.

Langdon's home economics classes in the Higginsville (Missouri) State School and Hospital span the ages of 5-21 and serve the mentally retarded. Her use of "stations" for independent study can be adapted by any teacher. Additional stations are described by the Editor later in the issue.

Slater's article, "Creative Think," should stimulate us all to think creatively about how to help others develop their creative potential. Her work with college freshmen and with non-credit adults could be adapted to any level.

We also invite your attention to a new face on our staff, graduate student Eleanor McBride, who represents a group we wish were more often represented among home economists, and who may give you a few chuckles in an article with a long title on pages 169-170.

The "centerfold" piece for your bulletin board and lessons three and four of "The Home Economics Teacher and Metrics" complete number three of the current volume.

In this issue we have tried to share the work and ideas of a few home economists whose positions are among the more unusual, in the hope that your thinking will be stimulated and that, as you read, you will have new ideas about your own job. If yours is an unusual home economics role or you know a home economist in such a role, we hope you'll write and tell us about it.

The Editor

### Letters to the Editor

Dear Editor of ILLINOIS TEACHER:

*I have just completed a truly rewarding unit in human development—due in good part to you. I incorporated Ruth Harms' "Self Awareness Inventory" (from vol XVII, no. 2, Nov.—Dec. 1973) into my unit and the results and response from my students were tremendous. It allowed each person to take a good, healthy look at where he or she is and where headed. The discussions that were shared were invaluable to both student and teacher. Much was learned!*

*My thanks to Ms. Harms and especially to you and your super publications. I sometimes wonder what we'd do without you.*

My thanks,  
Mrs. Jean Groman  
Flowing Wells Junior High School  
3710 N. Caballero Pl.  
Tucson, AZ 85705

Dear Sirs:

*We thought you would be interested in knowing that our September/October issue of ILLINOIS TEACHER OF HOME ECONOMICS arrived in very poor condition. The cover was badly bent and wrinkled. With the increase of subscription rates this year possibly a cover could be put on it. We would appreciate the magazine arriving in better reading condition.*

Sincerely,  
Mrs. E.T.  
Stillwater, MN 55082

Dear Editor:

*I have really enjoyed and used the ILLINOIS TEACHER in my work with disadvantaged women. Two techniques suggested there which the women "went wild" about were the skit, "How Much Food Will Ten Dollars Buy" (vol. XI, 1) and "What's In the Box?" (vol. XVII, 3).*

*I'm having difficulty finding techniques to teach some areas of home management and wondered if you could suggest methods you have used or devote an issue of ILLINOIS TEACHER to the subject... How do you teach decision making in concrete terms? How do you teach self discipline? Any suggestions will be appreciated.*

Yours truly,  
Ramona Chapman, Consultant  
Home and Family Living  
Adult Education Dept.  
Albion (Mich.) Public Schools

Dear Editor:

*... Our copies of ILLINOIS TEACHER are shared and utilized with many staff members and students. Your fan club is growing and it should because of the professional content which is so relevant to educators. You seem to be on top of what is happening and the magazine usually presents topics of concern before other journals and magazines in the field.*

Sincerely,  
Dr. Shirley Slater  
Teacher Educator  
Ohio University  
Athens, Ohio 45701

---

## New Faces and Places for Home Economics

Hazel Taylor Spitze

The theme for the current volume of *Illinois Teacher*, *New Faces and Places for Home Economics*, provides opportunity for much thought. The more "new places" for home economists we can think of, the more room there will be for new home economists and the less unemployment there is likely to be for new and old. But that is not the point. Home Economics is a profession, and a profession is meant to serve the society. When society grants an individual the privilege of entering a profession, it also bestows an obligation to achieve and maintain a high level of competence and to serve the society in whatever ways that competence permits.

Home Economics is a broad field and home economists do not all have the same competencies although many would say that there is a common core that all must master. With the base we have in the so-called "root disciplines" of physical, biological, and social sciences, and art, with at least a smattering of humanities, and with a variety of home economics courses in which we apply all these learnings, we are in a good position to begin a wide variety of specializations. If we do not consider a degree in home economics as a *beginning*, we are likely to be thought of as a jack of all trades and master of none, except, perhaps, home-making.

The American Home Economics Association, in its recent inauguration of the PIR (professional improvement record), has emphasized the importance of building upon our base and has recognized that there are many ways to do it. Some specializations require one or two graduate degrees and continuing study beyond. Others may require a broader background in areas in which we had time for only a course or two at the undergraduate level, and this background may be attainable without further degrees. Still others may call for a strong shift in direction, as, for example, when a person uses a home economics degree as background for a degree in law or medicine, a suggestion Doris Hanson called to our attention in a recent *ILLINOIS TEACHER*.

Although there is now a surplus of teachers in many fields and a surplus of professionals with doctoral degrees in some, there is no surplus of home economists. There may be incompetent persons with home economics degrees who are unemployed, but that is not an indication of a surplus. There is no reason for a highly competent home economist to be unemployed, except by personal choice, even if she

wants to work only part time and even if she allows herself to be geographically immobile by her husband's position. She may, however, have to exercise some imagination and show some aggressiveness and innovativeness in creating a position for herself if the usual home economics positions are all currently filled.

Now where are the "new places" that home economists can serve our present society?

Should a home economist be in the U.S. delegation to the World Food Conference which, as I write, is in the final planning stages and which, as you read, will be over? I recently asked an official high in the U.S. government, who will be a member of that delegation, whether any home economists would be included. His answer: There is talk of including a *nutritionist*. He did not say whether he considered a nutritionist a home economist (of course, some are and some are not), and he did not explain why the decision of whether to include a nutritionist had not been made even though the delegation was practically packing its bags for Rome at the time. If you were helping make the decision of who those forty delegates should be, would you include a home economist?

Should home economists be running for Congress and state legislatures? Of course, as citizens we can influence legislation and as members of professional associations we can hire lobbyists to represent us in influencing legislation, but perhaps some of us should *be* the legislators. Surely we can't leave all the legislative decisions to the lawyers.

Would our houses and public buildings be more livable if architectural firms included a home economist? Could home economists serve a useful purpose as advisors to clients in banks, insurance companies, and credit agencies?

Home economics is a good background for certain roles in social service agencies, such as departments of public aid, family service, or child welfare. We are needed in some agencies that are yet to be invented or present only in rare communities. What city or town does not need at least one home for runaway adolescents? (Maybe they should be called pushouts rather than runaways in some cases.) There is also need for a temporary home for women in unusual stress situations, such as physical attack by husbands, unwanted pregnancy, rape, inability to cope with children, loneliness and depression, and the like.

Home economists can also contribute to *consumer* services in a variety of ways, and they should have a role in planning to save the *environment*.

We can provide consultant services to advertisers,



moving companies, and the hospitality industry. Consultants are also needed by publishers, recreation businesses and agencies, day care centers and nursing homes, church groups, and television stations. Home economists can serve in housing projects and mobile home parks, and they can have a consultant role for physicians, dentists, and clinics.

All of the above are places, often new places, for the professional home economist with at least one degree. Often, though, there is no "job description", and the business or agency may not even realize that a home economist is needed. This is why imagination is needed to create the job and convince the employer that her services are essential to him. If the home economist is operating as a free lance consultant, she may serve several needs on a part time basis and "educate" many employers, preparing the way for future full time home economists.

There are also new places for the paraprofessional to serve, and then, of course, home economists to prepare the paraprofessionals. The example of the Cooperative Extension Service in its use of paraprofessionals in the Expanded Nutrition Program can lead us to think of other ways to add them to our team and extend our own usefulness. Could the Director of Consumer Affairs in a grocery chain supervise "consumer aides" in each store who would help customers make satisfying choices and be of benefit to the store at the same time? Could an interior designer or a business home economist use an "assistant" at sub-professional level? If so, where does the assistant receive his/her preparation for the job?

I think there is also need for a new position for paraprofessionals which might be called a "parent aide." This is different from a baby sitter and also different from the "homemakers" who have been prepared to go into a home on a temporary basis when the mother is ill or has to be away. The Parent Aide would come regularly or periodically to assist

the parent who is present. For single parents, either male or female, the Parent Aide could be a real boon. He or she could also be a "life-saver" to the mother who has twin babies or two babies only a year or so apart. In earlier times a grandmother or maiden aunt, or perhaps an uncle, may have served in this role, but most parents have no such assistance now. The Parent Aide would need preparation in high school, a community college, or an adult education center in the understanding of children, human relations, child nutrition, play activities, toy selection, child safety, and the like. He or she could serve in the home a role similar to the Child Care Aide in a nursery school or day care center.

Do we need new *faces* in home economics, too? Perhaps the profession could be strengthened and its contribution to society be greater if we provided increased opportunities and more alternatives for the elderly, the retired home economist who may have twenty years left to serve her fellow citizens, and may even be willing to do so as a volunteer.

We also need more *male* faces. Just as many professions are in dire need of females in their ranks, home economics is in need of males.

The potential of "mature" women, in their thirties and beyond, who have had their families and now have time to finish college or do graduate work, is often missed. Their contribution as teachers, for example, can often exceed that of those who do their student teaching at age twenty-one.

I think we need more home economists whose background is lower socioeconomic levels and more from minority groups. And I wonder what would happen to home economics if we had a sizable number of the youth who challenge the status quo and force us to reexamine "the way things are". Are home economics students always the "straights" and if so, what is the effect on the profession?



*The Editor, who is theoretically on sabbatical, but who is often at her desk working on the Illinois Teacher. She plans to spend a considerable part of the second semester in Washington, D.C.*

## THE NEEDS OF THE AGING: IMPLICATIONS FOR HOME ECONOMICS EDUCATION\*

**Martha Louise Wolf, M.A.**, Specialist for Home Economics & Business and Junior High School Teacher, Mesa, Arizona  
**Alice Elrod Whatley, Ph.D.**, Coordinator of Continuing Education University of Houston, Houston, Texas



*Martha Louise Wolf*



*Alice Elrod Whatley*

There have been many changes in the American social scene since 1900, which affect the needs of the aging. not only do the aged represent a larger percentage of the population, but education related to the process of aging has assumed a new prominence.

The implications for home economics educators include: provisions for student contact with aged persons; study of later stages of the family life cycle; readings which reflect current findings about the aged; and analysis of attitudes toward the aged. The home economics educator should be concerned with study of human relations; the forces affecting homes and families; and the utilization of this knowledge for benefit of mankind.

### The Social Scene

American living patterns have changed dramatically since the turn of the century, affecting the needs of the aged. Major changes related to persons 65 years of age and older have occurred in American culture since 1900. These events have taken place concurrently, and account for various alterations in family life style.

The shift from rural to urban living has transpired because of industrialization and technology. In 1900, sixty per cent of the total population resided on farms, where as many as three generations of families lived together (Shock, 1957). Fifty years later, only nineteen per cent of the population remained in rural surroundings.

The functional structure of the three-generation household of the early 1900's on the farm changed to a family unit of two generations in the city. An outcome of this shift is exemplified by the following statement:

"There are fewer tasks for the older person to perform for the family welfare to 'earn his keep' when he does live with the family, so the former household garden, or farm tasks which were shared among members of different generations do not exist in the same way, to provide common tasks from which stemmed companionship to bridge age differences (Maxwell, 1962, p. 16)."

This situation has produced a group of elderly persons who have little to do in order to be occupied within the home.

Urban living changed the housing scene to smaller and more compact units. Thus, room for grandparents and other members of the extended family or household was reduced or even eliminated (Maxwell, 1962). The result has been an increased demand for housing for the elderly.

Mobility of families has become characteristic of today's life. Fewer families live a lifetime in one location. Those families containing older people must decide between the older people remaining in the home town without family, or moving with the family to a strange location. For some older persons the favored alternative is locating in a retirement residence. According to Moss (1966), the housing decision should not be based on emotional attachments or fear of what the neighbors will say. Some of the emotional stress at this time would be alleviated, if concise information related to retirement housing were readily available.

Current trends also indicate potential concentration of the aged in parts of the country with milder climates (Shock, 1957). A growth of housing settlements for older persons has developed particularly in Florida, Texas, Arizona, and California (Zinsberg, 1963). Although greater numbers of retired persons are seeking housing, many communities do not have a central information and referral service. As a result, there would appear to be a bewildering lack of coordinated information for older persons as to what services are and are not available (Ann Arbor Conference, 1968).

Another social change pertains to the onset of retirement. In conjunction with industrialization, employee benefits are offered in the form of social security and private pensions. As industrialization

\*One result of this study was the development of a *Directory of Retirement Housing in Texas* with the assistance of Mrs. Donna C. Johnson, Director of Program Development, Texas Governor's Committee on Aging, Austin. The photographs included were supplied by Mrs. Johnson.



proceeds in association with these two programs, more workers are faced with compulsory retirement at some specified chronological age.

Compulsory retirement "has created a number of interesting phenomena whose effects have yet to be totally evaluated (Zinsberg and Kaufman, 1963, p. 47)." One of the noticeable effects of compulsory retirement has been the change in American living patterns, influencing associated housing needs of the aged. "Retirement from family duties and from work creates problems of living arrangements for many older persons. As children leave home, less space is needed, and reduced incomes sometimes make it essential to seek less expensive housing. . . . a new acceptance of homes for the aged is developing (Shock, 1957, p. 15)."

Because of advance in scientific and medical technology, the elderly population has increased. Since 1900, the number of persons 65 years of age and older has increased four times, while the population of the nation has doubled. In 1900, the aged group represented only four per cent of the total population. In 1955, the aged group represented eight and one-half percent, or approximately fourteen million persons. By 1975, the older group could represent between nine and ten per cent of our population (Beyer, 1958). This trend is expected to continue influencing the need for increased housing for the aged.

#### Current Trends in Housing for the Aged

Housing for the aged has been considered by scholars in various disciplines. It has been estimated that more than half of today's older people have special needs related to income, health, marital status, or other factors that would call for consideration of housing especially designed to meet their needs (Tibbits, 1962). Since home economics is concerned with the study and improvement of the home and family living for all people, home economics interest is extended to the area of housing for the aged.

A great deal has been written related to the aged and the needs of the aged, including housing needs, in the past decade. In general, the studies reviewed related to housing for the aged, indicated that a variety of living arrangements are chosen for a multitude of reasons.

One of the major factors in the selection of housing for the aged was concerned with income. Elderly individuals who are financially secure are free to select from among numerous types of housing facilities. A large portion of the aged people in the United States, however, are of low-income status and lack

wide selection possibilities in housing (Foxhall, 1966). Further, most retirement housing in the low income bracket offers shelter with no extra services.

To promote choice in housing arrangements for the low-income elderly, The National Council on Aging has recommended that rent subsidies can be provided (Foxhall, 1966). A home economist has suggested that multiple-unit rental housing in homogeneous communities be designed to meet the physical and income limitations of the elderly (Meeuwing, 1970).

Another factor in the selection of housing concerns the location and design of the facilities, and the services provided. A study of residents in a specially constructed retirement community in California indicated that forty-one per cent of the residents were attracted there because of the activities offered. Another twenty-five per cent stated dissatisfaction with previous housing (unfavorable location, lack of convenient shopping, medical, recreational facilities, poor climate) as the reason for relocating (Peterson and Larson, 1965). Another study in Florida reported that of those individuals who prefer to live in some type of planned group dwelling or retirement community, approximately twenty per cent do so because of a felt need for health services (Silverman, 1960).

Dr. Samuel Gertman, Director of the Division of Gerontology at The University of Miami Medical Center, stated this preference as follows:

"Very often, they [the elderly] don't need such services when they move in, but they anticipate needing some kind of health care. Probably for this reason, new housing for older people increasingly includes a convalescent section and/or clinic, or may be built near a hospital (Silverman, 1960, p. 69)."



From research administered in public housing settings across the nation, by the National Council on Aging, it was found that older tenants prefer to live in an assembly of apartments in one wing of a building



rather than being scattered throughout a project (Foxhall, 1966). It was stated that the aged choose a segregated living arrangement because it permits oldsters to dwell among a peer group, free from noise and traffic of children. At the same time, those who enjoy contact with youth, can have it in this arrangement (Foxhall, 1966).

The above studies indicate a pervasive preference for special housing for the aged. However, some negative thoughts regarding this type of housing were also identified. One survey reported that some older people view the move to a special setting with fear and hostility. The stated reasons included a sacrifice of independence, a belief that a move to this type of housing was a prelude to death, and a feeling of rejection by family members (Shanas, 1962). It would appear that the reasons express an attitude of worthlessness and fear held by a number of older people. It has been suggested that this occurs because a large part of the American culture has extolled growth and progress and given little value to the wisdom and experience of aging (Zinsberg, 1963).

#### Relation of Home Economics Curriculum to the Process of Aging

Home economics educators have made an effort to relate the home economics curriculum to the process of aging. Focus has been placed, usually, on the years of courtship, engagement, early marriage, and parenthood rather than upon later stages in the family life cycle (Lane, 1964). Teachers must now guide students in looking at the family life cycle as a whole, if the aged population is to be included in study (Morgan, 1969). The American Home Economics Association has recognized the worth of the individual throughout the life cycle in its statement on Philosophy on Aging:

"The current phenomenon of extended later life places new responsibilities upon the individual, the family, and all those organizations and agencies that make up the community to work toward the goal of assuring a satisfying and contributing participation of all individuals in society throughout their lifetime.

Assuming that our society will continue to terminate the primary occupation at some fairly uniform and arbitrary retirement age and that the individual will continue to have reasonable good health and mental abilities for many years after

this date, individuals . . . will need help in choosing a later-life role and preparing for it (Hoffman, 1967, p. xviii)."

The home economist can help meet the foregoing challenges on the high school, college and adult levels of education. Courses can be expanded to include:

1. information concerning the elderly
2. provision for student contact with aged persons
3. readings which reflect current findings about the aged in the United States
4. analysis of attitudes toward the aged among students within a class
5. study of the later stages of the family life cycle (Lane, 1964).

One method of conducting such studies could be through surveys of the aged in special housing establishments. Special topics of interest come into view related to various aspects of food and nutrition, textiles and clothing, interior design, institutionalized care, home nursing. In addition to conducting studies among the aged concerning the ways in which changes in family life have affected the elderly, family life courses could be strengthened through classroom visits by residents of a nearby housing establishment. In this manner, person-to-person contact could be afforded with an opportunity for increased exchange of ideas between generations.

Provision for student contact with aged persons should be accomplished easily. Older people are congregated in various housing facilities throughout most of the states. Students in all levels of home economics programs can achieve contact with older people through field trips to the housing establishments, and through classroom visitations by the aged people. Audio visual materials related to the aged can also enhance the course of study.

Since the Vocational Act of 1963, home economics educators have been increasingly concerned with home economics related occupations. Occupational preparation courses in home economics can be related to the aged. Home economics related occupations which might be helpful to the aged population include:

chauffeur	housing aide
clinic receptionist	paid companion
clinic worker	personal maid
delivery personnel	personal shopper
home health aide	porter
hospital worker	recreation worker
and others (Kupsinel, 1967).	

The special services offered in some elderly housing establishments could provide an opportunity for on-the-job training for students. Student experiences could be organized to furnish selected special services in housing settings having no provisions for the aged.

Additionally, through adult education, provisions for home economics education pertaining to money management, use of leisure time, nutrition, and other areas of need in the later years should be made available to aging adults. Because individuals are living longer with more unused time, adult education has attained a greater degree of importance than ever before in history (Rowley, 1966). Related to home economics, Albanese stated that "we must extend more opportunities to adults, making home economics education continuous for people throughout their lives (Albanese, 1962, p. 35)."

The idea that education must be concerned with the socialization and mental development of children and youth, with only minimal interest in the expansive period of adulthood and virtually no consideration for the older years, is rapidly becoming obsolete (Hoffman, 1967). Consequently, the time task of education is changing from termination at the work role to include the "idea of growth, the essence of which is growing old (Donahue, 1958, p. 105)." In certain instances this task is referred to as education for aging (Hoffman, 1967).

The home economist is concerned with the study of human relations, the forces affecting homes and families, and the utilization of this knowledge for the benefit of mankind. Hence, the home economics educator who is sensitive to the developmental stage in the continuing process of socialization called aging (Breen, 1962), can be an effective agent in forming healthy attitudes toward aging and the aged. Further, the home economics educator will see the need for increased concern being extended to the influence of



housing on the aged. James E. Montgomery has noted that "housing has often failed to contribute significantly to man's spirit, to his basic social and psychological needs (Montgomery, 1971, p. 416)." Contemporary housing for the aged will be seen by the home economics educator as an arrangement promoting continuous education as needed for the aged population. Teacher education programs and curriculum materials must include the critical educational needs for older persons in the United States, as well as their younger descendants.

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## HOME ECONOMICS IN THE ELEMENTARY SCHOOLS?

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Home economics has been a part of the elementary curriculum for a long time. Its extent becomes obvious as one studies the most recent elementary textbooks and curriculum guides. Work with elementary children in a flexible home economics experience-centered consultant program enables one to discover how rewarding such a program can be for the students, the teachers, and the family.

How the home economics program is organized depends upon the individual school system. In our local school district the classroom teacher and the home economics consultant have coordinated efforts within the regular elementary program (kindergarten through sixth grade) to benefit all boys and girls. It takes a Board of Education and Administrative Staff who are committed to providing "quality education." In our case we are fortunate to have a Superintendent of Schools who stresses the "human side of education" and a Director of Elementary Education who has a sincere interest in the home economics program and its contribution to the elementary school child.

The West Orange home economics curriculum is an overall plan for kindergarten through twelfth grade.

Broad objectives have been established as well as big concepts and main ideas for development as a child progresses through his school years. Rather than being specific for each grade level, the program is planned for four levels: Level I, K-3; Level II, 4-6; Level III, 7-9; Level IV, 10-12. This permits greater flexibility in choosing learning experiences that are appropriate for different grade levels, groups of students and individualized approaches. It makes possible learning experiences based on the needs and interests of each student.

The home economics program is centered around five areas. Broad goals and generalizations in each area provide the structure for the total program. The following summary of these areas helps to emphasize the philosophy prevalent throughout the total school program, that greater concern should be shown for the individual and his family than for the teaching of subject matter alone.

### I. The Developing Child (or Individual)

Broad Goals: Understand and accept self as  
as person



Understand the significance of clothing, food and housing to the personal development and behavior of all people

**Big Concepts:** Personal development; goals and values; behavior

## **II. The Child and His Relationship with Others**

**Broad Goals:** Prepare to assume his role as an effective member of a family and society

**Big Concepts:** Home and family; individual roles; successful family relationships; making and keeping friends; people need people

## **III. The Child and His Daily Living**

**Broad Goals:** Make decisions related to the needs and interests of individuals that are personally satisfying and socially acceptable  
Practice satisfying clothing, food, housing and personal relationships habits

**Big Concepts:** Making decisions in life; choosing resources; living habits

## **IV: The Child Uses His Resources for Health and Happiness**

**Broad Goals:** Participate in planning and using clothing, food and housing resources to satisfy individual and family goals and values

**Big Concepts:** Significance of food; reliable information; nutrition; eating patterns; getting food; planning, preparing and serving food, similar for clothing & housing

## **V: The Child and His Home Economics Education**

**Broad Goals:** Acquire understandings and skills for leisure and future careers by utilizing opportunities for study and jobs concerned with the clothing, food and housing activities

**Big Concepts:** Enrichment for any learning situation; leisure and recreational activities; people and jobs in clothing, food and housing

The key to successful home economics experiences is the classroom teacher because he/she knows the students best. It is the teacher who should request the home economics lesson and give guidelines for its execution, although in some cases the home economics consultant does try to motivate the classroom

teacher to make the request. Since his concern is for the total educational development of his students he will want to relate the home economics experience to other class experiences as well as share the responsibility for its completion and evaluation. For this reason most classroom teachers prefer to be actively involved in the home economics experience rather than using this time for other personal activities. In most cases the classroom teacher is in a better position to handle the mechanics of scheduling the experience and should share the responsibility for the care of all supplies and equipment.

The home economics consultant serves as a resource person to the classroom teacher and/or students. Her professional preparation makes possible a more relevant and successful learning experience. She has available the latest research in the field and is able to adapt it to the ability of the students. She helps to organize and maintain the home economics equipment in the school.

In addition to the actual teaching done by the home economics consultant, she provides other home economics resources. Some of these include: resource units, visual aids, reference books, pamphlets, teaching materials, and supplies. The home economics consultant should be familiar with the variety of commercial materials available, evaluate them carefully, make recommendations as to their use, and help the classroom teacher or students in obtaining them. A recent contribution by the home economics consultant to the educational process is in the form of a regular newsletter to classroom teachers in which current research in feeding, clothing, housing, and family life is summarized, evaluated and recommendations made for its correlation with different academic subjects.

Each learning experience needs to be evaluated regularly to be certain it is relevant to the needs of the students and that "real learning" is taking place. A more effective home economics program results when it begins in the elementary grades before the values, attitudes, and habits relating to food, clothing, housing, and family life have been established rather than waiting until the secondary school years when the emphasis may need to be on the changing of values, attitudes, and habits.

The home economics program is more likely to be successful if these guidelines are followed consistently:

The pupil understands the purpose of the experience; applies what he has learned to daily living as a family and community member. The teachers plan all lessons to

have purposeful learning experiences; share responsibilities for the program; utilize services and facilities to advantage; and evaluate together the experience done.

The program and experiences are realistic, related to the ability of the child, and follow a progress of learning; integrated with the rest of the curriculum; and are participated in by principals, teachers, pupils, and parents.

In school districts where no home economics consultant is available, it often is the junior or senior high school teacher who must take the initiative if elementary school children are to benefit from home economics education. If the secondary school is connected to the elementary school then it will be easy for the home economics teacher to invite elementary classes or individual students to come to the home economics room or the teacher can go to the classrooms. When school buildings are not connected, then travel time must be provided. Here is where sympathetic administrators can facilitate the scheduling procedures. This is more likely if they are involved in the planning.

It is important that the home economics teacher or consultant be prepared to demonstrate that a significant contribution can be made to the total learning situation. It is better to start slowly and do well than to promise too much. The remainder of this article will be devoted to helping the home economics teacher with planning. Suggestions will include a curriculum guide for nutrition education in the elementary schools giving emphasis and learning experiences for the different grades, a lesson that can be done in the classroom with a minimum of equipment and supplies, and a planning guide for an individualized study. This guide could be used by a student, a group of students, or a classroom teacher for the entire class.

#### *Curriculum Guide*

### **NUTRITION EDUCATION IN THE ELEMENTARY SCHOOL — WEST ORANGE**

#### **Broad Outcomes:**

Each person will enjoy eating the food needed for health and happiness.

Each person will be able to assume some responsibility for his own nutrition.

Each person will be able to assume his role in helping to provide an adequate food supply for all people.

#### **Focus and Basic Understandings:**

##### **LEVEL I (K-3)**

#### **Focus: INDIVIDUAL AND FAMILY ATTITUDES AND HABITS**

The body uses food for growth and good health, fun, sharing, etc.

The formation of attitudes and happy experiences with food.

Nutrition and the Basic Four Food Groups and their uses in meals.

The variety and customs relating to food and people.

Getting food and simple ways of protecting it.

The properties of food and the way it is changed in cooking.

Preparing food — recipes, terms, measuring ingredients, basic rules, etc.

Serving and eating food on different occasions.

##### **LEVEL II (4-6)**

#### **Focus: THE IMPORTANCE OF FOOD IN THE WORLD**

Important cultural, social, and world health needs.

Getting involved with feeding programs.

Reliable research as basis for eating patterns.

The science of nutrition — how foods are digested and used.

Eating patterns for different people.

How to relate food habits to different environments.

The complex operation of providing food; the consumer and the marketplace.

The agencies and procedures for protecting food and consumer.

The chemical and physical changes taking place in food.

Group work; simple food preparation routines.

Tasting experiences of foods from around the world.

#### **Approaches and Learning Experiences for Different Grade Levels (Examples of the variety used.)**

#### **KINDERGARTEN: POSITIVE ATTITUDES ARE DEVELOPED THROUGH FOODS THAT APPEAL TO THE SENSES.**

##### **Emphasis on:**

eating the right food as fun; importance of cleanliness, following routines, not wasting; use of recipes, follow directions, tools; attractive environment for eating; proper care and storage of food.

Experiences:

those that can be seen, felt, heard, smelled, or tasted. Fruits and vegetables of different colors, shapes, and textures; variety of forms of milk; use of leftover milk in pudding; pumpkin pudding and pumpkin juice (orange) for Halloween; making and using peanut butter; lime jello for St. Patrick's Day showing properties of water; cereal cookies for Mother's Day Tea.

**FIRST GRADE: THE MANY WAYS THAT FOODS ARE EATEN FOR HEALTH AND HAPPINESS**

Emphasis on:

meaning of food; cleanliness, routines, use of aprons; use of recipes and different ingredients; eating environment; care of kitchen, refrigerator, and classroom.

Experiences:

preparing and serving foods for breakfast, Halloween party, gifts, Thanksgiving, and winter; foods from the farm; homemade ice cream; write a story book of food for health and happiness; write a recipe book of all foods prepared in class.

**SECOND GRADE: WHERE WE GET THE DIFFERENT KINDS OF FOOD THAT WE NEED TO EAT**

Emphasis on:

different sources of foods (animals, plants); parts of plants eaten (stem, root, leaves, flower, seed); vegetables and fruits.

Experiences:

tasting different vegetables; vegetable soup luncheon; fruit lesson; eggs at Easter time; cereal; make bread.

**THIRD GRADE: THE DIFFERENT SOURCES AND FORMS OF FOOD USED AROUND THE WORLD**

Emphasis on:

variety of foods eaten in world; comparison of eating patterns in world with West Orange; sources of food and forms available in market; ingredients used in food.

Experiences:

grains and leavening agents; make grain products and freeze for Grain Fair; Mother's Day Luncheon featuring Basic Four foods and cereal products.

**FOURTH GRADE: TRAVEL WITH FOOD TO LEARN ABOUT PEOPLE**

Emphasis on:

need of all people for food; variety of foods eaten in world; the things that influence what people eat.

Experiences:

eat and drink milk — different forms, cheese; animals that give milk; cheese fondue; foods eaten by people in the desert and tundra.

**FIFTH GRADE: ALL PEOPLE NEED FOOD NO MATTER WHEN OR WHERE THEY LIVE**

Emphasis and Experiences

basic needs in Colonial Days; immigrants to this country — where settled, food customs; pioneers set out for the west — sour dough pancakes, rolls, bread; many forms and uses of corn — cornmeal, cornflake cookies, cereal; space foods — freeze dry; human development — digestion and metabolism of food.

**SIXTH GRADE: MANY PEOPLE IN THE WORLD ARE HUNGRY**

Emphasis and Experiences:

world hunger projects — especially Africa and Asia; UNICEF projects; Thanksgiving basket — plan around Basic Four and make many of the foods such as pie, bread, butter, cranberry jelly; preparation of foods of foreign countries; Christmas cookies characteristic of different world cultures; nutrition study based on child and parent needs.

★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★

*An Example of a Class Lesson:*

Students in second or third grade are introduced to the study of fruits and vegetables as part of their science unit on "plants." This is a perfect opportunity for the home economics consultant to share in planning the unit to teach these important home economics and science concepts:

We need to eat fruits and vegetables every day.

We eat different parts of plants for fruits and vegetables.

Man has used fruits and vegetables for meals since early days when he gathered his food from trees, vines and bushes.

Fruits and vegetables grow near us and far away.

We can grow some fruits and vegetables in our own gardens.

We eat fruits and vegetables in different ways (raw, cooked, canned, dried, pickled & as preserves.)

People all over the world eat fruits and vegetables.

Many people help us to get fruits and vegetables.



The home economics consultant could plan a lesson to introduce the study of fruits. Included could be the following ideas with the lesson being done in the regular classroom since the only supplies necessary would be the teaching visuals and a napkin, spoon and souffle cup for each student. (All supplies could be carried on a tote tray.)

To introduce the concept of the *Basic Four as a guide to good eating*, concentrate on the fruit and vegetable group but show it as part of the total diet.

Use charts or pictures to show the variety of foods that are available.

The *importance of the fruit and vegetable group* can be illustrated on the blackboard with a stick figure of a boy or girl. Make him grow, happy, able to move, and doing things. Children enjoy these stick figures and they are a perfect solution for the teacher who is lacking in artistic skills.

Show a few common spices to get the children thinking about *the history of fruits*. Relate how Columbus found plums and berries, the Pilgrims brought apples and pears, and Johnny Appleseed carried the seed throughout America, to their study of the history of this country.

A collection of plastic fruit or fruit pictures (or real fruit) can be used in learning about *the fruit families — the pomes, drupes and berries*. Have a Fruit Family Game to reinforce the teaching. Elect a leader for each fruit family. Give each child a fruit and as his name is called he joins the correct fruit family. In addition,

information about care, uses, methods of preparation, etc. can be given about each fruit. In the event of very large classes, it might be necessary to have different varieties of the same fruit.

The concept that *fruits ripen at different seasons of the year* can be compared to people and their birthdays. Using a calendar and birthday candles on the fruits, set each fruit on the month of the year that it becomes ripe. These same fruits can be used to show *the decorative role of fruit*. Consider placing an attractive basket of plastic fruit on the teacher's desk, in the principal's office, or in the library as a centerpiece.

The climax of the lesson is showing how fruit can be *eaten raw with the fingers* — a slice of apple; *cooked and eaten with a spoon* — applesauce; or *drunk from a glass* — apple juice or cider. To illustrate another use of the apple, give a taste of vinegar. You might like to dip the apple slice in cinnamon sugar or sprinkle cinnamon on the applesauce to relate the lesson to Columbus and spice.

#### Planning Guide:

### AN INDIVIDUALIZED INSTRUCTION PLAN

These forms can be available in the home economics room, the regular classroom, or the principal's office. The form should be completed and given to the home economics consultant at least a week in advance of the experience. In the case of large projects or large group-projects at least a month's notice is needed.

### HOME ECONOMICS — LEARN BY DOING

YOUR NAME \_\_\_\_\_ YOUR CLASS \_\_\_\_\_

#### YOUR PLAN FOR LEARNING.

What do you want to learn? \_\_\_\_\_

What activity do you want to do? \_\_\_\_\_

Why do you want to do it? \_\_\_\_\_

How will you learn to do it? \_\_\_\_\_

What are the supplies you need to use? \_\_\_\_\_

Your record of what you do:

Date	Activity	Results

Note: This form has been condensed for this article. It is good to allow two-to-four lines for each question and one-third of the sheet for the last section.

# TAKING OFF

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## AN OVERVIEW

Project Taking Off is a program for elementary school children based on the problem of being overweight. The program is designed in such a manner that it splinters into various academic disciplines. For example, I coordinate it to help an obese student with a perceptual problem and a history of reading failure, to develop to his fullest potential scholastically and in terms of his physical and emotional well being.

## HOW IT WAS CONCEIVED

To be honest, the program was conceived on the return trip home from a medical conference with the student's mother and doctor. A conference is normal procedure in doing a learning disabilities work-up. The doctor had strongly urged Scott's mother to put her son on a weight reduction program. Being his teacher, I began thinking of ways in which I could contribute in helping him lose weight. I felt the boy could "have his cake (i.e., . . . lose weight) and eat it too" (learn to read better). Thus "Project: Taking Off" was conceived at Exit 102 of the Garden State Parkway and with each of the four remaining exits to our destination of Seaside Park came a multitude of ideas. I wrote it up in rough form that same night and applied the finishing touches three weeks later. My principal was extremely optimistic and encouraged me to start the program with my student as part of his remedial instruction.

## EXPLANATION OF PROGRAM

The program splinters into the areas of math, science, psychology, history, consumer education, communications, and self image as the program's basic foundation. I firmly believe that for true individualization to work, the teacher should gather a profusion of personal, relevant and general facts about the student and then begin to construct a course of study based on these facts and relate them to the problem at hand.

## TEACHING TECHNIQUES

Project Taking Off was built around one boy; yet,

it can work with a group of children. We studied math in terms of counting calories and amounts, science dealt with the body and weight control, there was a crash Nader's Raiders type program as a consumer advocate looking at diet gadgets and propaganda in advertising. In psychology we touched on the why of overeating and reasons other than hunger why a person would turn toward food. Along with this would be simulated taped situations and open ended stories. We also took a personal glimpse at overweight people through history and asked whether their situations would have been any different had they been thin. The student created a time-line entitled "25 Heavy Weights of History".

## PROJECTIONS

To begin to recognize the potential outcome of a curriculum that educates obese children about their obesity, we should engage in some crystal ball-gazing to see how these children would be as teenagers. Perhaps the day is not too far off when an overweight teenager won't have to suffer fairy tale relationships with an unapproachable idol, or spend a Prom night dateless and lonely, or need to utter half-hearted excuses to skip gym class and suffer the anguish and secret disappointment due to a weight problem that imposes rigid limits and prevents his/her full participation in school athletics. To insure against these disappointing experiences, we as educators should make it a point to spot the danger signs and attempt to educate these children in such a manner as to prevent these pathetic prophecies of loneliness.

The starting point should be at the elementary school level before the teen-age years. Children who are overweight at this point need to be given the chance to learn to reject those things their bodies do not require.

Project Taking Off is a losing by learning program that provides an educable and informative approach to their weight problem, its causes and an ultimate practical strategy for the correction and alleviation of it.

## OBJECTIVES

There were both short term and long term objectives actively involved in Project: Taking Off. The short term objectives included getting the student to understand his problem in ways that were relevant, interesting, and creative, yet academic. The long term objective is to wipe out the pathetic prophecies and painful experiences concerned with obesity in children and teenagers.

## STUDENT RESPONSE

In this type of program, it was important that the school and home reinforced each other. The student went from 178 lbs. to 152 lbs. More than the exterior change, a new self image had emerged with confidence and success. Scott learned that it was the amount he ate as well as the particular foods that caused weight gain. The name-calling disappeared and he earned a new respect from his peer group.

## OBJECTIVES OF THE PROGRAM

### I. RESPONSIBILITIES

#### A. Educational — The School's Role

1. The school will be responsible for a multi-disciplined instruction program in weight reduction on a daily one hour basis during school hours.
2. The program itself is primarily designed for perceptual impairment but splinters into communication, math, art, science, reading, history, consumer education, thus affording a multi-disciplined approach to perception with nutrition and weight reduction as initial themes.
3. The program is designed to accommodate perceptually impaired overweight children, but may be expanded to include other classifications at a later point in time.

#### B. Parental — The Home's Role

1. The program's success is dependent upon the support of the student's family in encouraging and reinforcing the progress in the home.
2. The parents may or may not attend the outside program for weight control, but should encourage the student to attend if possible.
3. It is the parent's decision as to whether or not they want the student to follow the guidelines of said program, which is not connected to or associated with the school in any form.

### C. Educational Limitations

1. It is *not* the responsibility of the school to reinforce this program beyond the set hours indicated for it in the school day.
2. The school will not be responsible for any additional home carry over of the program.

### D. Student's Responsibilities

1. It is expected that the student will keep a concise daily log describing any feelings that he may have or any particular facets of the program each day.
2. The student will "weigh in" once a week and chart it.
3. The student is expected to complete all assignments given during the course of the program.
4. The student will collaborate on a cookbook of his own original recipes which will be typed and bound at the program's end.

## II. EDUCATIONAL COMPONENTS

### A. History

1. Using the theme "historical implications of overweight," we shall discuss and study famous historical figures who were overweight and their situations. Art activities correlated. (Timeline: 25 HEAVY-WEIGHTS OF HISTORY; SKITS; FAT PROFILES OF HISTORICAL FIGURES, ON INDEX CARDS; ETC.)
2. We will discuss today the age of a weight conscious society.
  - a. dress and fashion
  - b. past designation of being overweight as compared with today's concept
  - c. pictures and demonstrations of before and after weight loss.

### B. Science

1. Using the initial theme of "medical implications of overweight," we will study fat cells and their role in overweight. CHARTS
2. Calories — their role, what they are and do, extremes.
3. Damage done to the body by being overweight. CIRCUIT BOARD.
4. Crash diets, why they don't work, their dangers.
5. Medication — diet pills, effects and side effects.
6. Diet products and gadgets.



### C. Psychology

1. Reasons other than hunger for eating.
  2. Simulated situations to be taped.
    - a. loneliness
    - b. frustration
    - c. anger
    - d. jealousy
  3. Why eating is used as an escape.
    - a. Define escape
    - b. Is it really an escape?
    - c. Student's personal situation
- (CREATIVE CHALLENGES)

### D. Communications

1. The concise writing of an accurate log of experiences in the program.
2. Quizzes on material and vocabulary.
3. The creation of a cookbook with student's recipes.
4. Reading — weekly compositions called CHALLENGES.
5. If possible, a video taped "Gulping Gourmet" show.

### E. Math

1. Learning to use correct amounts.  
SCALES
2. Conversion to Metric equivalents.
3. Computational caloric problems.

### F. Consumer Education

1. A Crash Nader's Raiders type approach to the propaganda and false advertising of diets better known as Promises Promises.

### G. Technology for Children (T4C)

1. cooking
2. taping
3. photography
4. construction of related projects with corrugated cardboard.
5. exercise
6. resource persons — druggist, nurse, dietician, etc.

## LIFE EDUCATION AS A MEANINGFUL APPROACH TO DRUG ABUSE EDUCATION, SEX EDUCATION AND HUMAN SEXUALITY\*

BY

DOUGLAS P. BECKETT

AND

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SAN DIEGUITO UNION HIGH SCHOOL DISTRICT  
CARDIFF BY THE SEA, CALIFORNIA

Life education is a one semester course offered in the eighth grade. This is known to be a crucial year in terms of students' physical and emotional growth.

Unlike any other course in junior high school, Life Education specifically deals with the understanding of these sudden changes so that the student doesn't become frightened or bewildered and is able to cope effectively with his or her situation.

All Life Education classes are co-educational. It is an elective course which all students are encouraged to take. Life Education can best be described as the creation of a classroom community developed through effective verbal and non-verbal communication. Emphasis is placed upon understanding the social, emotional, and physical self through the study of inter-personal relationships, career planning, drug abuse, nutrition and health, sex education, and human sexuality. The primary focus of this course is

teaching self-acceptance and responsibility through understanding of human needs and their relation to human values and the understanding of values as the basis of individual choices and decisions.

The course is divided into five major areas: COMMUNICATIONS, DECISION MAKING, RELATIONSHIPS, DRUG ABUSE, and SEX EDUCATION AND HUMAN SEXUALITY.

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\*The program described herein is a revision of the original program written by Linda Kelly and Larry Morgan in 1971 and is presently the one being taught.

## COMMUNICATION

This section involves both verbal and non-verbal communication. We feel very strongly about including communication because it is a very significant part of our lives and it is important that we learn to communicate at an early age. Good communication can determine relationships throughout life with peers, parents, and spouse. It is one of those tools we need that will remain with us forever. Many young people are incapable of talking on a one-to-one basis, have poor eye-contact, and have difficulties being a good listener. Through communications we develop a mutual trust and understanding in the classroom and are able to share our feelings. It is at this point, right from the beginning, that the community starts to evolve. Verbal communication is centered around games for human growth groups that are used as well as conversations on a one-to-one basis. Many discussions take place in large circles, everyone having an opportunity to participate. We also break into small circles frequently to discuss topics of interest. These circles are not opportunities for encounter and are only a place for sharing. With increased interest in others within the class, listening skills develop.

Non-verbal communications are just as important, and again, growth group exercises are used. This is not necessarily sensitivity, even though touching is not frowned upon. Non-verbal communication helps to develop an awareness of other peoples' needs as well as our own, plus an understanding and respect for the individual. The ability to do things for other people without having to be asked is an attribute that requires close observation and insight. In developing verbal and non-verbal communication skills, the whole process of human development begins, and is continued throughout the course. In our groups, people are never required to participate but are always given an opportunity. This allows for a very relaxed and accepting atmosphere.

## DECISION MAKING

The ability to make decisions is the fastest way to gain independence. Many young people are not trusted to make decisions on their own and, therefore, are incapable of making these decisions when it becomes necessary. Decision-making skills are invaluable. We divide this into three areas: values clarification and values as a basis of all decisions; information and objectives; and, strategies and alternatives.

Values clarification is an extremely important part of this course. Each person should be allowed to dis-

cover for himself what he values, not necessarily what the teacher, the principal, or even his parents value, but what he knows to be of extreme importance to him. Only by knowing this can he make effective decisions. Values are learned from experience. Through others' actions, new values may be discovered which students may wish to identify with but never should these be declared right or wrong for another person.

As a source of information we use *VALUES AND TEACHING* and *VALUES CLARIFICATION* by Rath, Simon and Harmin. These are two outstanding books everyone actively teaching and influencing the formation of values should carefully read. The values clarification process can easily be abused by those who fail to realize that it is much more than a game or a way to occupy time.

Part of the decision-making process includes information and objectives. Information is needed to make satisfying decisions and young people learn techniques by which to gather all possible information relevant to their decisions. A person needs to have an idea of where he or she wants to go, and what is to be accomplished before some decisions should be made. This is where objectives, which are related to values, are considered.

Strategies and alternatives are somewhat self-explanatory. Here young people view all possible choices available and consider different ways to apply the information that has been accumulated. Helping young people develop the ability to make satisfying decisions helps them to "make it" in today's society. Knowing that we cannot make decisions for young people, we should emphasize the idea that they be allowed to make decisions for themselves; and, in order to make satisfying decisions, they must have the capability.

## RELATIONSHIPS

Relationships in the family, peer relationships at school, those in the community, and male-female relationships are examined. It is quite possible that many young people never take the time to look at themselves as a member of the relationship, to see what they are contributing, or stop to look at the other people involved. This can be very difficult. By examining relationships we become very much aware of our own feelings and start to discover who we are and how we act. We start to take into consideration the value in meaningful relationships and how productive they may be. We examine the ideas of working together instead of against people. Young people are very interested in relationships, involving both the



same and opposite sex. They are not limited there. They start looking at the cliques, at the "in" group and the "out" group and examining many different situations which are taking place today. When they have decided whether they want to be a part of a group, they have begun to develop a sense of identity.

These first three major areas, communication, decision-making, and relationships comprise a large part of the process of human development. Young people have had a chance to examine themselves as individuals. They have also had a chance to consider other people and are beginning to accept them as people. Students are grasping the idea that it is OK to be me and it is OK to be you. It is the "I am OK" and "You are OK" theory without going into the actual philosophy behind it. After these young people have had an opportunity to discover who they are, we can start to offer them the major bulk of information that should be put across during this course.

## DRUG ABUSE

Drug abuse includes the barbiturates, the amphetamines, the narcotics, tobacco, alcohol, marijuana, and hallucinogenics. Effects of specific and combinations of drugs are discussed, with emphasis on avoiding the dangerous effects and the possible damage that one can do physically. We begin sharing experiences and meaningful information without trying to moralize. We stress that each person, as an individual, will have to decide for him or herself; whether or not to get involved becomes a personal decision. Hopefully these young people are realizing that they can get "high" on life, without using drugs for that purpose.

## SEX EDUCATION AND HUMAN SEXUALITY

Sex education and human sexuality occupies the final month of the semester. The increasing number of unwanted pregnancies, sky-rocketing abortion rates, and the ever-increasing venereal disease rate impress upon us the need for concern in this area. These are very definite problems and, to us, they pose a challenge which we try to meet by presenting honest information.

In this unit we offer young people opportunities to make decisions based on sound information, and try to help increase their capability of avoiding unwanted situations. We examine some possible pressures, look at the value in them and emphasize the

fact that each person, as an individual, has the right to say "no".

In attempting to put Life Education down on paper, we are discovering that it is much more than just a class. By the time the semester is over, we have just begun. The students are more aware of themselves than they were eighteen weeks before, but the growth that takes place in the class will not be measured for some time. We believe the major concepts in our program are important and we believe that it works for us. The instructor needs to remember that to be a success, he must be himself. He must eliminate the false images and become a part of the classroom community, not just its leader. Our program is expanding, and we have noted that other teachers in our school have used some of the ideas in their programs. We hope that this description will help other schools to introduce or expand such programs, too.

The efforts made throughout the semester display themselves in this unit when students are very accepting and extremely open and curious with thoughtful questions and comments. Never have we encountered laughter or thoughtless remarks. The extent to which these young people reveal their problems and concerns is heart-warming.

Male-female anatomy, menstruation, conception and contraception, birth and venereal disease are topics covered. We have found from student comments and questions that a great many of them need this information because they are sexually active. Even if the information is not needed now, it should be an asset in the future life of every young person.



*Ms. Vick and Mr. Beckett*



# LIBRARY DISPLAY: A STRATEGY FOR LEARNING "ALL ABOUT ME!"

by Sara Ayers Bagby

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Doctoral Candidate in Home Economics Education, University of Maryland

and Georgene Jeberrhein LaRue

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"In recognizing the inevitability of rapid change in today's society, educators are challenged as never before to find the means of developing in youth a stable personality. The only predictions about the future that can be made with certainty are that it will be different and change will be a constant way of life."<sup>1</sup>

The display outlined in this article was developed as one effort to help young children increase awareness of self and surroundings. It is assumed that schools can make a contribution towards developing adults who can cope with the changing world. If schools are to assist individuals in becoming stable, flexible persons who can accept and analyze possible alternatives without feeling threatened or becoming defensive, experiences aimed at increased understanding of self and others should begin early. "The cure for those self-defeating coping strategies, so far as educators are concerned, lies not in emergency measures but rather in the steady, consistent effort to make education more responsive to the real needs and essential quality of all human beings."<sup>2</sup>

## Library Display for K-3

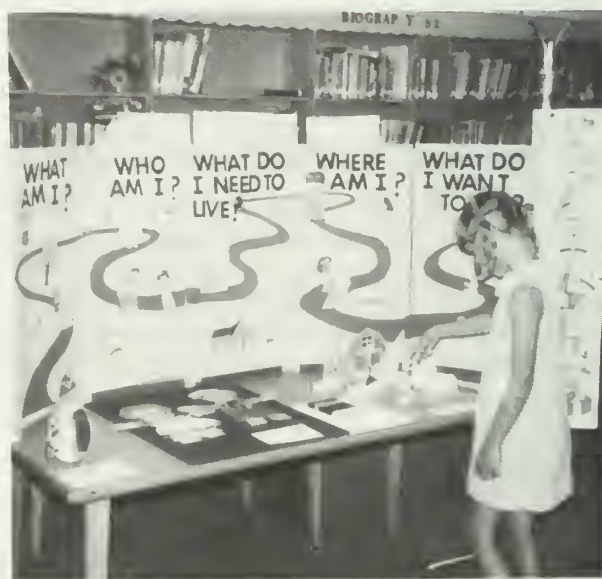
One group of new faces for home economics is early elementary children. Utilizing the availability of space in the library of Allenwood Elementary School (Prince George's County, Maryland), a strategy for learning "All About Me" was planned and implemented for students, K-3.

The overall display concept "All About Me" was divided into five sub-concepts. The content began with the concrete physical self (Display I) and progressed to feelings and their indicators (Display II). Displays III, IV, and V focused on the individual's relationship to the physical near environment, and interaction in the social environment. Both large and small group experiences, as well as individual projects, were included. Some teacher, aide, or parent involvement was built into the total learning experience.

Physically, the display consisted (1) of a five-panel backdrop on which the special emphasis questions were represented in words and pictures, and (2) of a table on which the resources for each concept were placed. Experiences for each area of emphasis were displayed for a period of one week and the emphasis of the week was designated by a pointing finger on the backdrop.

The display was planned to provide experiences which:

- (1) would actively involve the students,
- (2) could be applied to real life,
- (3) enable students to make choices,
- (4) could be adapted to special interest or level of students,
- (5) would appeal to a variety of senses,
- (6) give opportunity for socialization,
- (7) would be fun!



"What's it all about?"

## Adaptation of the Display

Although the display outlined was planned for the students, resources, and facilities at Allenwood, it is shared to stimulate your creativity in adapting the basic idea to meet the needs of your situation. Flexibility and individualization were key considerations in the planning and use of this strategy for learning. For example, pre-school students with hearing impairment were presented display interpretation in sign language.

The experiences selected were either teacher constructed or developed from inexpensive, readily available commercial products. There are a number of kits on the educational-resource market which have components suitable to one or more of the conceptual areas. The kit, *Me, Myself and I: How Preschoolers*

*See Themselves*,<sup>3</sup> produced by J.C. Penney Company, provides additional experience suggestions and lists a wide range of resources. The kits in the area of career awareness (Display V) are numerous.

Some other "places" for a learning experience of this nature might be in the individual classroom or pod area in the elementary school, in the pre-school laboratory of a home economics department, or as a learning center in the local public library or civic center. F.H.A. members could extend their classroom learnings by serving in the guidance role for the children involved in the experiences.

Wherever — or however — you choose to adapt and put into action the basic idea presented here, may your efforts be greeted with the enthusiasm and pleasure that this display received at Allenwood Elementary School.

<sup>1</sup> Whitfield Bourisseau, "To Fathom the Self: Appraisal in School" in Kaeru Yamamoto, ed., *The Child and His Image* (New York: Houghton Mifflin Company, 1972), p. 80.

<sup>2</sup> Ibid., pp. 80-81.

<sup>3</sup> This kit may be obtained from: Educational and Consumer Relations Department of J.C. Penney Company, 1301 Avenue of the Americas, New York, NY 10019. Price \$11.00.

### DISPLAY TITLE: ALL ABOUT ME!

Student Population: K-3

Overall Objective: The student will increase awareness of himself as an individual and of his place in the world around him

### DISPLAY I: WHAT AM I?

Concept: The individual as a physical being

Content	Experiences	Resources
The outside of me is the part I can see	Look in the mirror: What do you see? What color are your eyes? What color is your skin? What do you see two of?	Mirror
The part I see is a copycat of me. A doll can be a copycat of me.	Assemble the body parts of a doll on a flannel board.	<i>Raggedy Ann and Andy Hang-ups</i> A Whitman Book Western Publishers Racine, WI
This is me as I am now.	Trace the bodily outline of a student or have students draw a self-portrait.	Large sheets of paper Markers, crayons
My body will have the same parts as I grow larger	Play game: Match cutouts of children with adult, and baby animals with adult animals.	Pictures

I am growing

Weigh and measure each child. Record  
in *My Growth Record*.

Scales for weight  
Hang chart for height  
*My Growth Record*  
National Dairy Council  
Chicago, IL 60606

Coordinated books for children:

Austin, Margot. *William's Shadow*. New York: E.P. Dutton and Company, 1954.

Bel Geddes, Barbara. *I Like to Be Me*. New York: Viking Press, 1963.

Hopkins, Lee. *Me! A Book of Poems*. New York: Seabrook Press, 1970.

Krauss, Ruth. *The Growing Story*. New York: Harper and Row Publishers, 1946.

Lenski, Lois. *Big Little Davy*. New York: Oxford University Press, 1956.

Stanley, John. *It's Nice to Be Little*. Chicago: Rand McNally and Company, 1965.

## DISPLAY II: WHO AM I?

Concept: The individual as an emotional being

Content	Experiences	Resources
There are many ways I can express my feelings.	Play game: Match the picture of the child showing feelings with the picture of the action. Sample questions for guidance: How does the boy show anger when he rips his pants? What feelings does the girl show when she breaks the bottle? or Look at prints, <i>Moods and Emotions</i> , and answer: How does a person show: happiness? anger? sadness?	<i>Electric Quiz Game</i> World Toy House Division of Telmont Corp. St. Paul, MN  <i>Moods and Emotions</i> Print Set David Cook Publishers Elgin, IL 60120
I can be: happy or sad, cross or pleasant, excited or calm, loud or quiet, brave or fearful	Change expressions on Mr. Potato Head or in an outline of a face on the flannel board.	<i>Mr. Potato Head</i> game Hassenfeld Brothers Central Falls, RI  Flannel board Pieces of face to represent various expressions
I show how I feel by: the sound of my voice.	Role play situations in which emotional response could vary. Record voices. Question: Can you guess what your friend was feeling by the way he was talking?	Recorder, tape Role playing situations
the look on my face.	Look in a mirror and change expressions. Let friend guess the feeling being expressed. View filmstrip, <i>How Do You Feel?</i>	Mirror Filmstrip, <i>How Do You Feel?</i> Encyclopedia Britannica Corp. 425 N. Michigan Ave. Chicago, IL 60611



What I feel on the inside shows  
on the outside.

Listen to record, *A Face*.  
Summarize kinds of feelings  
and ways they can be expressed  
to others.

Recording, *Sing About Feelings*  
Sesame Street Record and Book  
Company  
Columbia Records  
51 W. 52nd Street  
New York, NY

Coordinated books for children:

Anglund, Joan. *Love Is a Special Way of Feeling*. New York: Harcourt Brace Jovanovich, Inc., 1960.

Berger, Terry. *I Have Feelings*. New York: Behavioral Publications, Inc., 1971.

Hoban, Russell. *Bedtime for Frances*. New York: Harper and Row, 1960.

Marlin, Bill, Jr. *David Was Mad*. New York: Holt, Rinehart and Winston, Inc., 1967.

Shaw, Richard. *Who Are You Today?* New York: Frederick Warne and Company, 1970.

Vogel, Ilse-Margaret. *The Don't Be Scared Book*. New York: Artheneum Publishers, 1969.

Zolotow, Charlotte. *Do You Know What I'll Do?* New York: Harper and Row, 1958.

### DISPLAY III: WHAT DO I NEED TO LIVE?

Concept: The environment as a source of satisfaction  
of basic physical needs

Content	Experiences	Resources
I live in a house that gives me shelter and I call the house my home.	Putting away game: Match pictures of items with storage area in pos- ter house. (House is a mounted cardboard cutout with hinged openings for closets, drawers, cabinets, appliances.) Where in this house would you place the . . . (milk, jacket, or other pictured items)? Where would you keep your . . . (clothes, toys)?	Teacher constructed poster or <i>Playhouse Kiddles Pressout House</i> A Whitman Book Western Publishers Racine, WI  Pictures of food, clothing, and other household items.
I need to eat when I am hungry. Eating the right foods helps me grow and stay healthy.	Place samples of foods on the correct section of the four basic food groups.  Assemble sample menus for a day illustrating use of foods from the four basic groups. Can you help select foods which will help you grow and stay healthy?	Empty boxes, cans, cartons for foods, or models (or samples) of foods.  Basic four food wheel made from Poster P505, <i>Guide to Good Eating</i> National Dairy Council Chicago, IL 60606
I wear clothes to protect me from the weather.	Dress Wendy or Willie (plasticon dolls with four season fashions) according to weather conditions specified on a card drawn from the pack.	Cards to indicate weather conditions with words and drawings — for example, "Sunny and Warm" with a drawing of sun in the corner of the card. <i>Wendy, the Weather Girl</i> <i>Willie, the Weather Boy</i> Romper Room Standard Toy Kraft, Inc. Brooklyn, NY

Some other things I can do to keep healthy are: Go to dentist/doctor for examinations. Get plenty of sleep. Exercise each day. Bathe and brush my teeth regularly. Clean and bandage my hurts.	Feel fabrics of different weights and textures. Questions for guidance: Which fabric would you choose for a winter coat? Summer shirt/blouse? Why?	Large swatches of fabrics.
	Select a card. Find the equipment needed to solve the health care problem listed on the card.	Cards with situations requiring health care written on them. Sample: I have a fever. What would be used to take my temperature? Exhibit of equipment child would use in health care. Example: toothbrush soap, handkerchief, immunization record, thermometer, band-aids.
	Do simple exercises.	Teacher or aide to lead exercises.

Coordinated books for children:

Beshau, Elas. *Pelle's New Suit*. New York: Harper and Row Publishers, 1929.  
 Clymer, Eleanor. *Tiny Little House*. New York: Atheneum Publishers, 1969.  
 Duvoisin, Roger. *House of Four Seasons*. New York: Lothrop, Lee, and Shephard Company, 1956.  
 Leaf, Munro. *Health Can Be Fun*. New York: J. B. Lippincott Company, 1943.  
 Showers, Paul. *How Many Teeth? ; Look at Your Eyes*. New York: Thomas Y. Crowell, 1962.  
 Wright, Betty. *This Room Is Mine*. Racine, WI: Western Publishing Company, 1966.

#### DISPLAY IV: WHERE AM I? (WHO IS IMPORTANT TO ME?)

Concept: The individual as a part of family and community groups

Content	Experiences	Resources
Both animals and people live in families.	Play the game, <i>Farmyard Families</i> , to assemble animal family. Can you tell the names of the horse family? How are animal families like human families? How are they different?	<i>Farmyard Families Game</i> . Ed-U-Cards Commack, NY
Some people important to me are: my family,	Listen to the record, <i>Five People in My Family</i> . Adapt song to families of students.  Make a collage of family members.  Play <i>Mothers Helper Game</i> in groups of four. The object of this game is to be the first to complete a chore to help the family. How can you help your parents with house and yard work? What can I do to help brothers and sisters?	Recording, <i>Numbers</i> , Sesame Street Record and Book Company Columbia Records 51 W. 52nd Street New York, NY  Magazines, scissors, paste, construction paper.  <i>Mothers Helper Game</i> Milton Bradley Company Springfield, MA

school friends,	View filmstrip, <i>School Friends and Activities</i> or <i>Schools Around the World</i> Discuss, as a group, school friends/activities and what they mean to the individual. How are schools similar/different?	Filmstrip — <i>School Friends and Activities</i> Singer 1345 Diversey Parkway Chicago, IL  <i>Schools Around the World</i> Field Enterprise Corporation Chicago, IL
community members.	Role play a family as they meet community members during a walk in the park. Use finger puppets for characters.	Pressout book — <i>Let's Walk in the Park</i> A Whitman Book Western Publishing Company Racine, WI 53404

Coordinated books for children:

Adams, Florence. *Mushy Eggs*. New York: C. P. Putman's Sons, 1973.  
 Anglund, Joan. *A Friend Is Someone Who Likes You*. New York: Harcourt Brace Jovanovich, Inc., 1958.  
 Beim, Jerroll. *Kid Brother; Too Many Sisters*. New York: William Morrow and Company, 1952, 1956.  
 Clifton, Lucille. *Don't You Remember?* New York: E. P. Dutton and Company, 1973.  
 Cohen, Miriam. *The New Teacher*. New York: Macmillan Company, 1972.  
 Fisher, Aileen. *My Mother and I*. New York: Thomas Y. Crowell Company, 1967.  
 Gauch, Patricia Lee. *Grandpa and Me*. New York: Coward, McCann and Geoghegan Inc., 1972.  
 Justus, Mary. *New Boy in School*. New York: Hasting House Publishers, 1963.  
 Zolotow, Charlotte. *A Father Like That; If It Weren't for You*. New York: Harper and Row Publishers, 1971, 1966.

DISPLAY V: WHAT DO I WANT TO BE?

Concept: The individual as a future worker

Content	Experiences	Resources
There are many jobs for workers in my community.	View filmstrip from set, <i>Community Helpers</i> . Do you know anyone who works in a job shown in the filmstrip? Did you see any jobs in which you would like to work?	Set of filmstrips, <i>Community Helpers</i> Singer Company 9345 Diversey Parkway Chicago, IL
People do different things in different jobs.	Match black cards with orange cards in the game, <i>People and Their Jobs</i> . The black cards represent persons in different jobs and the orange cards indicate what the worker does or uses in his work. Did you match the person with what he does? What other things do those people do?	Teacher constructed from: <i>People and Their Jobs</i> Play School Press Chicago, IL



Some workers are called helpers.

Choose a black card, and check the way/ways the job would help others.  
How does your job help others?

Copies of check-list of questions—  
Does the job:  
Help people protect their homes?  
Help people to get food?  
Help people to learn?  
Help people to be safe?  
Help people in transportation?  
Help people in communication?  
Help people to enjoy themselves?

In the future, I will choose a job that is for me.

Listen to record and look at booklet, *When I Grow Up*.

*When I Grow Up*  
Golden Records  
Western Publishing Company  
1220 Mound Avenue  
Racine, WI 53404



*Experiences to learn "What am I?"*

Coordinated books for children;

*Childcraft*, Vol. 8. *What Do People Do?* Chicago: Field Enterprise, 1972.

Green, Carla. *I Want to Be a (an) . . .* (Series). Chicago: Childrens Press.

Hoffman, Elaine. *About Helpers Who Work at Night*. New York: Melmont, 1963.

Newman, G.P. *About People Who Run Your City*. New York: Melmont, 1963.

Rowe, J.A. *City Workers*. New York: Franklin Watts, Inc., 1969.

Schwartz, A. *Night Workers*. New York: E. P. Dutton and Company, 1966.

Wilkinson, Jean and Ned. *Come to Work with Us in (at) . . .* (Series). Chicago: Childrens Press.

Suggested References for the Selection of Children's Books:

Arbuthnot, May Hill and Zena Sutherland. *Children and Books*. Fourth Edition. Glenview, Illinois: Scott, Foresman and Company, 1972.

Georgiou, Constantine. *Children and Their Literature*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969.

Reid, Virginia (Ed.). *Reading Ladders for Human Relations*. Fifth Edition. Washington, D.C.: American Council on Education, 1972.

Jeanne Fanning led her students to some new learning about iron in the diet in a booklet full of questions, charts, problems, and answer sheets. Her intriguing title stimulates interest in the relationship between dietary iron, hemoglobin, and oxygen in body cells.

## THE HOMELIVING CLASSROOM

Katie Langdon  
Community Relations  
Higginville State School & Hospital

### THE HOMELIVING CLASSROOM

The staff of the Higginville State School and Hospital has developed a unique approach to teaching home economics to mentally retarded young adults. Located east of Kansas City in Higginville, Missouri, the Higginville State School and Hospital serves approximately 400 educable mentally retarded persons from the ages of 5–21. All students enrolled in the home economics program are functioning teenagers who are preparing to leave the institution and live in the community. It is hoped that the students will learn in this program the skills necessary for independent living within society.

The program in the "homeliving classroom" employs individualized work stations. The classroom is structured to handle ten students in a one-hour block five days a week. The student utilizes the work stations Monday through Thursday and on Friday he/she is exposed to some type of socialization experience. On "socialization" day, the teacher stresses doing things in groups to help the student learn how to work and cooperate with others.



Cooking

A homeliving student practices his skills at the kitchen station, where he learns to prepare a sandwich. On group "socialization" day the class often prepares full-sized meals.

Stations set up in the classroom cover such areas as housekeeping, cooking, grooming, sewing, consumer education, laundry, kitchen care, leisure-social skills, and health. Learning machines, such as an Avidesk, which teaches basic job skills by the use of filmstrips and tapes, are also scheduled into individual work stations. Information about all the work stations is posted on a colorful chart above the teacher's desk. Spaces are allotted next to the station for a student's name. (See the following chart for an example.)

#### STATION CHART

15 First Aid _____ (student's name)	17 Housekeeping
11 Grooming _____	10 Leisure Time
5 Budgeting _____	6 Free Time
7 Measurement _____	8 Kitchen
4 Safety _____	17 Housekeeping
16 Family Living _____	11 Grooming
12 Washer/Dryer _____	13 Job Skills
3 Ironing _____	1 Avidesk I
9 Sewing Machine _____	10 Leisure Time
2 Avidesk II _____	14 Typewriter

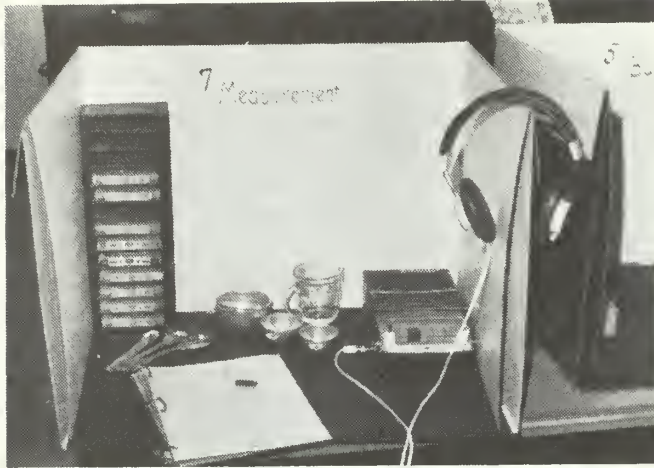
General first aid skills are taught at the first aid station, such as directions in case of accident, application of a tourniquet, treatment and care given to insect bites and stings, poison oak or ivy, and snake bites. Artificial respiration is also covered in the lessons. In the stations on first aid, measurement, safety, family living, grooming and job skills, specific programs along with cassette tapes help students learn the skills. In other stations, pupils receive actual experience.

Two grooming stations are included on the station chart. At the first station students work on their general appearance by caring for their nails, washing and setting hair, polishing shoes, washing face, etc. The second grooming station includes a tape and lessons covering posture, diet, hair care, dental care, clothing and color coordination.

What a student does at the budgeting station depends upon his/her level and basic understanding of money. For the lower level students, money booklets



are used to introduce students to the different coins. Higher level students perform tests in such skills as making out checks and balancing check books.



#### Station

Approximately 20 individual stations or carrels are arranged in the homeliving classroom at the State School, providing a student with a wide choice of work for the day. This measurement station covers the skills necessary accurately to measure dry and liquid ingredients by the use of a taped program. After a student completes the 20-minute program, he is tested by the teacher, and then proceeds to the next program.

The measurement station covers the use of rulers and measuring tapes. Some students can work on measuring dry or liquid ingredients in cups, teaspoons, etc. At the safety station general procedure is reviewed with the use of stoves, ladders, matches, sharp and pointed objects. A realistic approach about family roles is taken up in the family living station, where students tackle such questions as Who am I? and Why do I act as I do? Basic sex education is planned for advanced students.

Located in the homeliving classroom is a washer and dryer where students wash and dry their own clothes. At the ironing station, they are taught how to iron. If a student enters the classroom at the beginning of the hour wearing a soiled or torn piece of clothing he must wash, dry and iron it during the hour. If it is torn, he must utilize the sewing station to mend it. Future plans include a trip to the local coin-operated laundry, since many students will not have the use of their own washer and dryer.

Students at the housekeeping station practice washing windows, sweeping, dusting, cleaning sinks, and washing dishes. Often homeliving students work in the school building doing housekeeping chores.

Homeliving teachers incorporated the leisure station so that students might learn skills to occupy them during their free time. At these stations, each student does projects in such areas as needlepoint, embroidery, oil painting, and building model cars. Each project must be completed before another is begun.

Another station well utilized is the kitchen. Here a student prepares simple foods by himself and is expected to leave the area clean. On group socialization day, the class may bake cookies or prepare full-sized meals.



#### Ironing

If a student begins his class day with a wrinkled piece of clothing, he must utilize the ironing station. A special emphasis is placed upon proper grooming and appearance. All laundry cleaned in the washer and dryer is also ironed by students at the ironing station.



In order to provide more privacy for the student as he is working and to help him attend to the task, the stations are set up as individual carrels or offices. Every student has his own plastic storage box for materials. This helps the student learn to organize himself and become responsible in accounting for his own progress.

Point cards are issued to each student in the homeliving class. If a particular station has been completed satisfactorily, the teacher awards the student a certain number of marks or points for achievement. When the student's card is completely filled, he may exchange the card for money or tokens which he may spend at his leisure at the school. Privileges could be substituted for tokens or money to fit public school programs. If a student displays inappropriate behavior, the teacher may fine him. Fines may be collected in tokens or money or by removing points from the point card. A list of fines, such as fighting, cursing, stealing, etc. is posted on the bulletin board. By use of the point card system, the student is motivated to achieve the task which is asked of him.

As the student enters the classroom, he follows this procedure with assistance from the teacher only when necessary:

1. Student enters classroom and is awarded five marks for acting as an adult and being well-groomed. Students tardy for class, for instance, would not be awarded any marks.
2. If the student begins his order task immediately to the best of his ability and completes it alone, he receives five marks. The order task is a short exercise designed to settle and calm the students and to orient them to the classroom atmosphere.
3. The student goes to the chart of stations and locates his name. Each day the teacher matches names with stations. After completion, the names are rotated so that during a 12-day period a student will move as quickly through the stations as he/she is able. Each station takes approximately 20 minutes. Numbers are placed next to the stations for students who are unable to read.
4. The student completes the first station listed on the left of his name and then the one on the right.
5. After he determines the station he is to start with, the student gets his folder which contains

his point card and progress sheet and his box of materials, if necessary.

6. The teacher supplies the written lesson and tape for the cassette recorder and helps the student begin his work. If the student needs help during the twenty-minute period, he raises his hand for assistance.
7. When the student completes the lesson, the teacher gives him a post-test to see if he has acquired the information. Points are given according to work accomplished, depending on each student's ability. If the student is unable to pass the post-test, it is noted on his progress sheet. The next time he returns to this station, he must repeat that lesson before advancing to another lesson in the station.

The teacher's role in the homeliving classroom is extremely important. The program works more effectively if two teachers handle the classroom. Teachers are responsible for:

1. Finding available resources for the various stations.
2. Taping lessons as they are written. It is necessary for teachers to tape and write their own lessons since few commercial materials are available.
3. Mimeographing materials to accompany taped lessons.
4. Assisting students in their work.
5. Writing post-tests for each station.

Because of the structure of the homeliving program, there are many built-in motivational factors. Some of these are:

- (1) The student looks forward to changing stations.
- (2) The student has his own tape recorder and earphones.
- (3) He/she views individual questions while listening to the tape which helps him attend better.
- (4) He/she enjoys accomplishing something alone, a possibility because of the structure of the program.

The homeliving classroom at the Higginsville State School and Hospital has been a successful program in that it has provided mentally retarded teenagers the important skills required for living within our community. Many aspects of the homeliving program can be modified to fit private and public school classrooms.



## CREATIVE THINK

By Shirley Slater, Ph.D.  
*Assistant Professor, Consumer Service and  
Education, Ohio University, Athens*

### *A Teaching/Learning Experience*

How can we put some excitement into our teaching? How about a "Creative Think" learning experience? Can a semester course, a unit or a module about creative thinking stimulate creativity in your students?

Creativity may seem to be a rather abstract concept but the investigation of creative thinking can be a rewarding experience for students and teachers. Creative thinking courses are being offered to various age groups and different types of people all over the country. Preschool children, elementary students, middle school boys and girls, junior high youngsters, high school youth, college students, adult groups, businessmen, handicapped persons — all have been involved in creative thinking experiences.

### *Ah—ha!*

Have you ever had an "ah—ha!" experience? Perhaps you had a problem related to your work or to a school situation. Maybe you were concerned about a family problem or a human relations matter. Perhaps you had to decide on a term paper topic, select a gift for a friend or solve a discipline problem. You may have thought about the problem and you may have gone through some steps in a problem solving process, such as:

1. Accept situation
2. Analyze problem
3. Define problem
4. Ideate possible solutions
5. Select a solution

6. Implement solution
7. Evaluate solution

If you received no immediate answer to your problem you probably let the problem incubate. Suddenly — maybe while resting, driving a car or doing the dishes — you had an idea! The solution became clear and you thought to yourself — ah-ha! The "ah-ha" is what creative thinking is all about.

All of us have had an "ah-ha" experience, but few people develop their full potential in creative thinking ability. There are blocks to creative thinking for some people. This may require unlearning and relearning, and there are ways in which creative thinking can be stimulated and encouraged.

### *Rationale*

The rationale for a creative thinking course is usually based on three assumptions.

1. Everyone has the potential to be creative.
2. Creativity can be stimulated and developed.
3. Almost anything can be creative.

These assumptions are derived from research studies and writings by leaders in the field of creativity. Alex Osborn, E. Paul Torrance, Sidney Parnes, Edward De Bono, Don Faban, Abraham Maslow and Carl Rogers are a few of the leaders who have encouraged the development of creativity in every person. Creativity becomes a part of personal self fulfillment, of the being and becoming process and of self actualization.

There is a need for creative thinking today and

there will be a need tomorrow. There are many problems to be solved, both personal and societal. We have an obligation to develop our own creative potential and to encourage the development of creativity in our students.

### *A "Creative Think" Class*

During the Fall Quarter of 1973 a "Creative Think" experience was offered to freshman students at Ohio University. The five-hour freshman interdisciplinary course was in the University College. The thirty students, male and female, represented all areas of the university. Some of the students were undecided about majors; others were planning careers in nursing, communication, English, engineering, art, child development, and business.

Due to various interest and ability levels of the students the course plan was flexible. Individualizing instruction was a key component in the program. Students were offered one hundred and ten possible learning strategies. Examples of the learning strategies were:

- Keep a "creative think" notebook
- Write a reaction paper to readings, speakers or events
- Design an environment for the future
- Make a creative collage
- Brainstorm uses for common items
- Write a play, a poem, a story or a TV script
- Create a media presentation
- Compare theories and/or research about creativity
- Do some "imagineering"
- Analyze a local problem and offer solutions
- Design a greeting card or stationery
- Interview someone you consider creative
- Module Format
- Develop a sensory kit involving all of the senses
- Invent a new product
- Design an unusual package for a product
- Recycle some item you have
- Create a "parent pak", a "unipak", a "motopak" or a "creatikit."

### *Module Format*

A competency based education format was used on an experimental basis. An instructional module was developed and was revised during the course. At the end of the course the module was again revised into a learning package format which could be used by students or teachers, individually or in groups.

The module included:

1. A title page
2. A module model
3. Rationale
4. Pretest
5. Objectives
6. Learning strategies
7. Calendar
8. Reference list
9. Strategy sheets including case studies, problem sheets, information sheets, assignment sheets, criteria sheets, simulation, games, etc.
10. Post-test
11. Self assessment sheet
12. Supplementary materials

Students had three options in relation to the objectives for "creative think". The students reacted to the list of objectives by checking one of the following:

- A. I accept the objectives as stated and will turn in evidence to meet the objectives.
- B. I accept the objectives in part but I will change and modify the stated objectives to meet my needs.
- C. I do not accept the above objectives and I will write my own objectives and turn them in to the instructor.

### *Assessment*

Evaluation was based on self assessment by students and assessment by the instructor. Questions on the assessment sheet included:



1. Did you meet the objectives for creative think?
2. What evidence will you submit to show that you have met each objective?
3. What letter grade do you feel you deserve based on the evidence you will submit?
4. How do you feel about your contribution to the Creative Think Class?
5. How do you feel about the Creative Think Class?

This evaluation was quite effective. Students had the responsibility of submitting their evidence to meet the objectives. The students became involved in evaluating themselves and there were no complaints about grades.

### *Content and Activities*

During the quarter the students were involved in a variety of activities including:

1. field trips to see creative thinking in action
2. guest speakers who shared their philosophy about creativity
3. individual projects related to writing, photography, art work, crafts, inventions and music
4. task teams working on group projects and reports
5. group process activities
6. awareness activities
7. value clarification activities
8. simulation exercises
9. educational games
10. seminar discussions
11. sharing sessions
12. individual conferences
13. evaluation "think-ins"

There were five phases related to the objectives of the course. Often these phases overlapped.

- Phase I — Definition and Philosophy of Creative Thinking
- Phase II — Strategies for Developing Creativity
- Phase III — Creative Problem Solving Process
- Phase IV — Leaders, Resources and Materials
- Phase V — Product and/or Process Development

A film titled *Creative Think* was made during the quarter. The students were in the film as well as contributing their ideas, projects, definitions of creativity, expressions of creativity and the questions they asked about creativity:

What is creativity?  
 What is creative thinking?  
 Is it process or product?  
 Is everything creative?  
 Is anything creative?  
 Is everyone creative?  
 How is creativity evaluated?  
 How is creativity stimulated?  
 Are you creative?

A booklet was compiled which included excerpts and examples of student work during the quarter. Poems, stories, articles and reports were collected and duplicated so that each student could have a copy to keep.

### *Comments*

The "creative think" experience was evaluated by students as rewarding. Comments such as

"I now see other classes in a different way."  
 "I never thought I could be creative."  
 "I really enjoyed the class and knowing the other students."  
 "Does the class have to end now?"  
 "All students should have this opportunity."  
 "I love our film."  
 "I feel accepted as a person."  
 "I'm less afraid to express my ideas now."  
 "I had trouble being responsible for my own learning but I liked the opportunity."  
 "I liked the choices and alternatives."

As in most cases, the teacher learned a lot about creativity and about people. This knowledge was used later in planning a course for adults.

### *Developing a Program*

Teachers who are interested in creativity could first try out some aspects of a creative thinking program within the structure of present courses. Then, a course or unit could be developed. Teachers might ask themselves the following questions:

1. How many ways can I relate creative thinking to home economics?
2. Could I interest the boys in my classes in creative thinking situations?

3. Can I challenge the gifted student with creative thinking learning strategies?
4. Could I reach the student with special needs through creative thinking projects?
5. Can I teach decision making and problem solving in this creative way?
6. Do I know of any adults or faculty members who would benefit from creative thinking?
7. Would I grow as a person and a teacher by developing my potential as a creative thinker?

### Keys to Creativity

If you are ready to develop your creative thinking potential, there are some keys which will help unlock blocks to creativity.

1. We all have the potential to be creative.
2. If we are not afraid to fail or to take risks, we may have more creative experiences.
3. It may help to experiment, play games, pretend, be childlike in our response.
4. Having confidence and checking out the resources we have available, may extend our creativity.
5. We need flexibility and sometimes non-conformity.
6. We can't afford to give up too soon nor to be afraid of the unknown.
7. If we can accept some feelings of confusion and disorder as a part of the process, we may become more creative.
8. Presenting and sharing our ideas and being spontaneous may also help.
9. Letting ideas incubate sometimes leads to new angles or problem solutions.
10. Developing our sensitivity and awareness may remove blocks to creativity.

### Lateral Thinking

In the book *New Think*, Edward De Bono explains creative thinking as "lateral thinking." He relates the scientific problem-solving process to vertical thinking or "digging the hole deeper" in the same place and in a logical manner. Lateral thinking is digging a different hole in a different place. Sometimes creative thinking involves a combination of both vertical and

lateral thinking. But there are some of us who need to get out of the same hole and dig somewhere else.

If we try creative thinking, lateral thinking, going one step beyond, we may enter the land of "ah-ha."

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### Learning Strategies for Creative Think

#### React to A Photograph

1. Make up a title or caption for this picture.
2. Write a story to go with this photograph.
3. Express in writing how this picture makes you feel.
4. List the subject matter areas you could relate to this photograph.
5. What current news story could you use with this picture?
6. What problem in our country is represented in this photograph?
7. What song title does this picture represent to you?
8. How could you use this picture as an interest approach in the classroom?

#### Invent a new product and sell it

1. Make a list of some products on the market which you think are clever. Are there some items you wish you had invented? What about pam-

pers? peanut butter and jelly mixed together? foil? spray cans? patches for blue jeans? cassette tapes, etc.

2. Now think up an original idea for a new product. You may need to brainstorm ideas and then select one idea for your task team's product. Give it a name.
3. Plan an advertising campaign to sell your product. How would you promote your product? Make a sign advertising your idea.
4. Sell your new product to the class. The class will vote for the best presentation and the best product. (This could be the same group or a different one).

#### How many uses can you think of?

For a brown paper sack?  
For a red brick?  
For a wire coat hanger?  
For a scrap of fabric 12" square?  
For an empty glass bottle?  
For — you name it!

#### Famous person

Think of a famous person you consider to be creative. Describe the person without giving his or her name. What was the person like? What did he or she do? How did other people respond to the creative person's ideas or inventions? This can be written in a case study form, as a Who Am I?, as a bibliography or as a short series of statements or clues. Include the person's name at the end of the

page and a statement of why you selected this person.

#### Legacy

Your great aunt Nellie died and left you her belongings. Unfortunately she did not leave you any money. Because you are the youngest relative she had, you received the leftovers.

A. What would you do with these items? Be creative!

1 Broken wooden rocking chair  
1 Broken black umbrella  
1 Old metal trunk  
1 Old twin saggy mattress  
3 Wood milking stools  
6 Tulip bulbs  
1 Case of dog food  
1 Electric fan dated 1930  
1 Danish Bible  
3 Shaggy dogs  
1 Lace tablecloth  
1 Old blind

B. What resources did you use? What values were involved?

#### Criteria

How can creativity and/or creative thinking be evaluated? Prizes and awards are given in areas such as music, art, journalism, science and literature. What criteria *can* be used in assessing creative ability? What criteria *are* often used to evaluate creative process or product? Should there be such criteria? Why or why not? How would you determine the creative value of an idea or product?

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# Et Cetera

A 1974 publication that has recently come across the Editor's desk, *Evaluation in Home Economics*, published by the Indiana Home Economics Association, may save teachers a lot of time and effort.

It is a comprehensive 146 pp, 8½ x 11" size, book in a bright red paper cover. It includes a wide range of subjects in evaluation, such as program on curriculum evaluation, FHA, and evaluation of both students and teachers.

Based on a philosophy that seems sound to this editor, it contains concrete examples of instruments developed by teachers in a graduate course at Purdue University for use in a wide variety of situations in both cognitive and affective areas. In a few cases the values of the teachers are equated with "the correct way", but all can be adapted to suit the needs of other students and teachers.

The 50 or so evaluation procedures included or illustrated are listed on page 6 in three groups: pre-teaching, during teaching and post-teaching. There is a brief but useful bibliography.

This fourth edition of *Evaluation in Home Economics*, revised by Mrs. Lucille Frick, can be ordered for \$3.62 (including sales tax and postage) from: University Book Store, 360 State Street, West Lafayette, Indiana 47906.

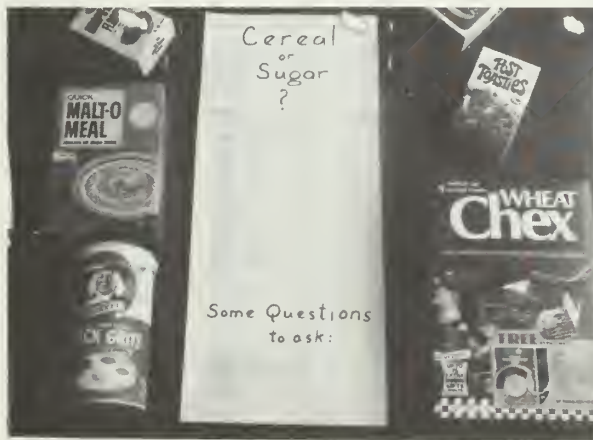


### AN IDEA FOR YOUR REACTION

We have not found a home economist, male or female, willing to pose for the currently popular type of "centerfold" for *ILLINOIS TEACHER*, but we wondered how you would like a different kind of centerfold, a couple of pages you could carefully remove, without damaging the rest of your journal, and use for a bulletin board.

The one we have included here in this issue contains a photograph of a possible bulletin board (see below) and two pages of information you could post to stimulate consumer thinking in regard to cereal purchases. The focus could be on nutrition, on food costs, on labeling, or all three.

It might be interesting to cover the "Cereal Survey" sheet with another sheet containing, in large letters: Guess which ones have more sugar than cereal! Then the viewer could lift the sheet and find the "right" answers.



# CEREAL OR SUGAR?

## SOME QUESTIONS

### TO ASK:

When you buy cereal with sugar added (that is, pre-sweetened cereal), how much of the product is cereal and how much is sugar?

How much are you paying per pound for the sugar?

Is the cost more or less than when you buy sugar separately?

Is sugar harmful to your teeth?

Does sugar raise the calorie value of cereal?

Does sugar have any nutrient value besides energy?

Does sugar consumption have any relation to the likelihood of “heart trouble”?

Would you vote for a regulation that prohibited manufacturers from adding more than 10% sugar to the cereal? Or one that required them to state on the label the exact percentage of sugar in the product?

# CEREAL SURVEY\*

CEREAL	COMPANY	MORE SUGAR THAN CEREAL	SOME SUGAR ADDED	NO SUGAR ADDED	PRICE	NO. OZ.
Buc Wheats	General Mills		X		61¢	10
Cheerios	General Mills		X		57¢	10
Wheaties	General Mills		X		80¢	18
Total	General Mills		X		76¢	12
Booberry	General Mills	X			60¢	8
Rice Krispies	Kellogg		X		72¢	13
Special K	Kellogg		X		87¢	15
Corn Flakes	Kellogg		X		45¢	12
Sugar Pops	Kellogg		X		84¢	13
Sugar Smacks	Kellogg	X			84¢	15
Sugar Frosted Flakes	Kellogg		X		97¢	20
Apple Jacks	Kellogg	X			86¢	11
Raisin Bran	Kellogg		X		99¢	20
Froot Loops	Kellogg	X			100¢	15
Product 19	Kellogg		X		73¢	12
40% Bran Flakes	Kellogg		X		64¢	16
All Bran	Kellogg		X		60¢	16
Shredded Wheat (spoon size)	Nabisco			X	61¢	18
Shredded Wheat (regular)	Nabisco			X	43¢	10
Post Toasties	Post		X		66¢	18
Super Sugar Crisp	Post	X			89¢	18
40% Bran Flakes	Post		X		65¢	16
Grape Nuts	Post			X	64¢	18
Grape Nut Flakes	Post		X		73¢	18
Fortified Oat Flakes	Post		X		72¢	12
Raisin Bran	Post		X		71¢	15
Puffed Rice	Quaker			X	53¢	7
Puffed Wheat	Quaker			X	53¢	6
Captain Crunch	Quaker		X		67¢	12
Quisp	Quaker		X		62¢	9
Quaker 100%	Quaker					
Natural Cereal	Quaker		X		81¢	16
Freakies	Ralston Purina		X		56¢	9
Wheat Chex	Ralston Purina		X		60¢	15
Puffed Rice	Super Valu Stores		X		32¢	6
Quaker Instant Grits	Quaker			X	44¢	8
Quaker Instant Oatmeal (Natural flavor)	Quaker			X	57¢	10
Quaker Instant Oatmeal (Special flavors)	Quaker		X		57¢	13
Quick Cream of Wheat (Regular)	Nabisco			X	82¢	28
Quick Cream of Wheat (Special flavors)	Nabisco		X		58¢	10
Malto Meal	Malto Meal Company			X	67¢	24
Quick Quaker Oats	Quaker			X	49¢	18

## COOKED CEREALS



### For Your Continuing Professional Education

One of the important ways to keep from getting into a rut, to avoid falling into professional incompetence, is to join your professional associations. *Illinois Teacher* would like to call to your attention at this time one of them, the *HOME ECONOMICS EDUCATION ASSOCIATION*, at 1201-16th St., N.W., Washington, D.C. 20036.

The dues may rise soon, but at present you can still join at the un-inflated rate of \$5.00, and as a member you will receive a newsletter and at least two publications each year. The ones planned for this year are "Family Life Education: Application of the Methodology of Conceptual Teaching" by Dr. Kinsey Green of the University of Maryland, and one on the teaching of boys in home economics.

Meetings of HEEA are held in conjunction with other professional conferences (e.g., AVA) so that no extra travel is required.

HEEA is affiliated with the AAAE, the Alliance of Association for the Advancement of Education, along with over a dozen other associations, which are working together to increase professionalism in education. Three members represented HEEA at AAAE's third annual conference in May 1974 in Arlington, Virginia, a key feature of which was a Leadership Training Program. The AAAE has also prepared and distributed a series of tapes to 300 radio stations to be used as spot announcements calling attention to changing patterns in education and the position of this Alliance on increased professionalism. A journal is in the beginning stages of preparation.

For further information or to join, write to Mrs. Catherine Leisher, Professional Assistant, HEEA, 1201-16th Street, N.W., Washington, D.C. 20036. You may wish to request a list of publications from previous years that are still available.

## Self Teaching "Stations" Help to Individualize Instruction

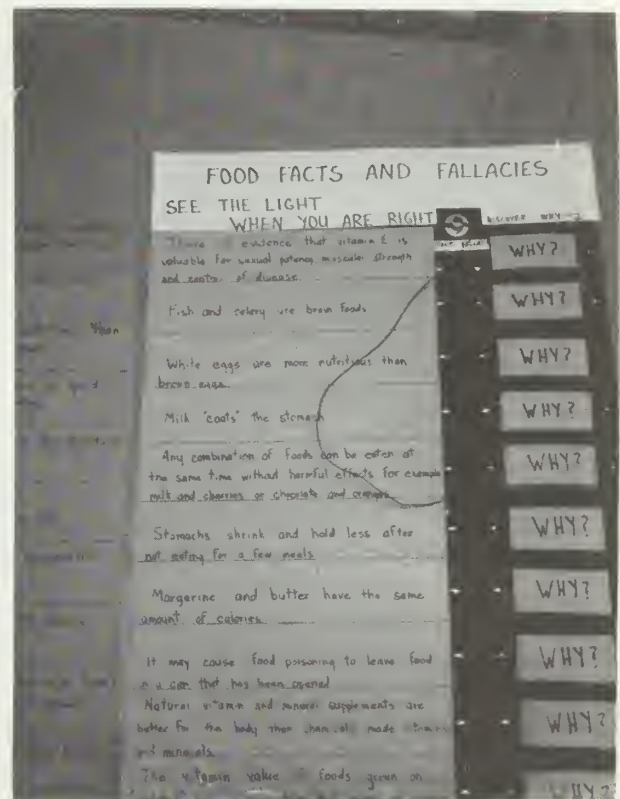
by The Editor

No one needs to tell a teacher that each of his or her students is an individual with his/her own learning style, interests, reading level, background, needs and abilities, nor that instruction that is individualized is likely to be more effective. But finding ways to teach *individuals*, rather than trying to get the whole group to do the same thing at the same time in the same way, is often difficult.

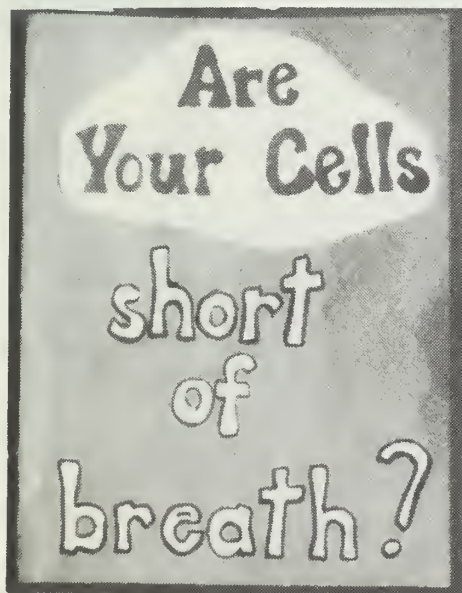
If the *materials* can do the teaching, then the teacher can be free to attend to the humanizing aspects of his/her job — circulating around the room, communicating with individuals and small groups, showing interest, asking and answering questions, getting to know the students better and showing that the teacher is a *person*.

Some teachers set up "stations" in the classroom and encourage students to proceed from one to another at their own pace. Some stations have materials that can be taken to a table or desk, and some are carrels that provide work space at the station. All are self-teaching and offer students the opportunity to *discover* the principles to be taught.

The photographs below suggest possibilities for such work stations, or individualized instruction, developed by the University of Illinois graduate students or student teachers whose names are given with each example.

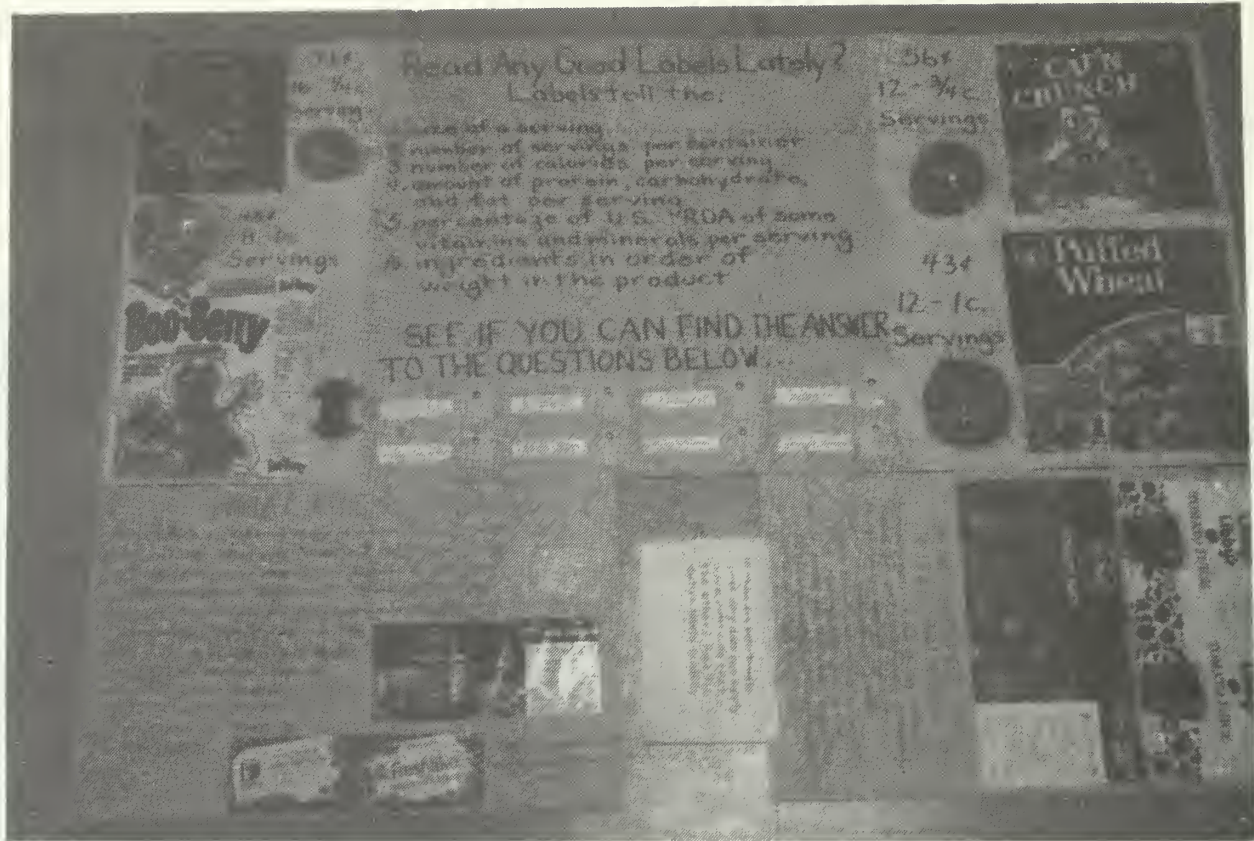


Paula Walker made an electrical board to enable the student to know, via the light that came on, when the chosen answer was correct. Lifting the card labeled "Why?", the student gained additional information. Ms. Walker made several sets of questions, on different colors of poster board, to use with the electrical set-up. The heading could also be changed when she wanted to teach about other subjects with the board.



Jeanne Fanning led her students to some new learning about iron in the diet in a booklet full of questions, charts, problems, and answer sheets. Her intriguing title stimulates interest in the relationship between dietary iron, hemoglobin, and oxygen in body cells.





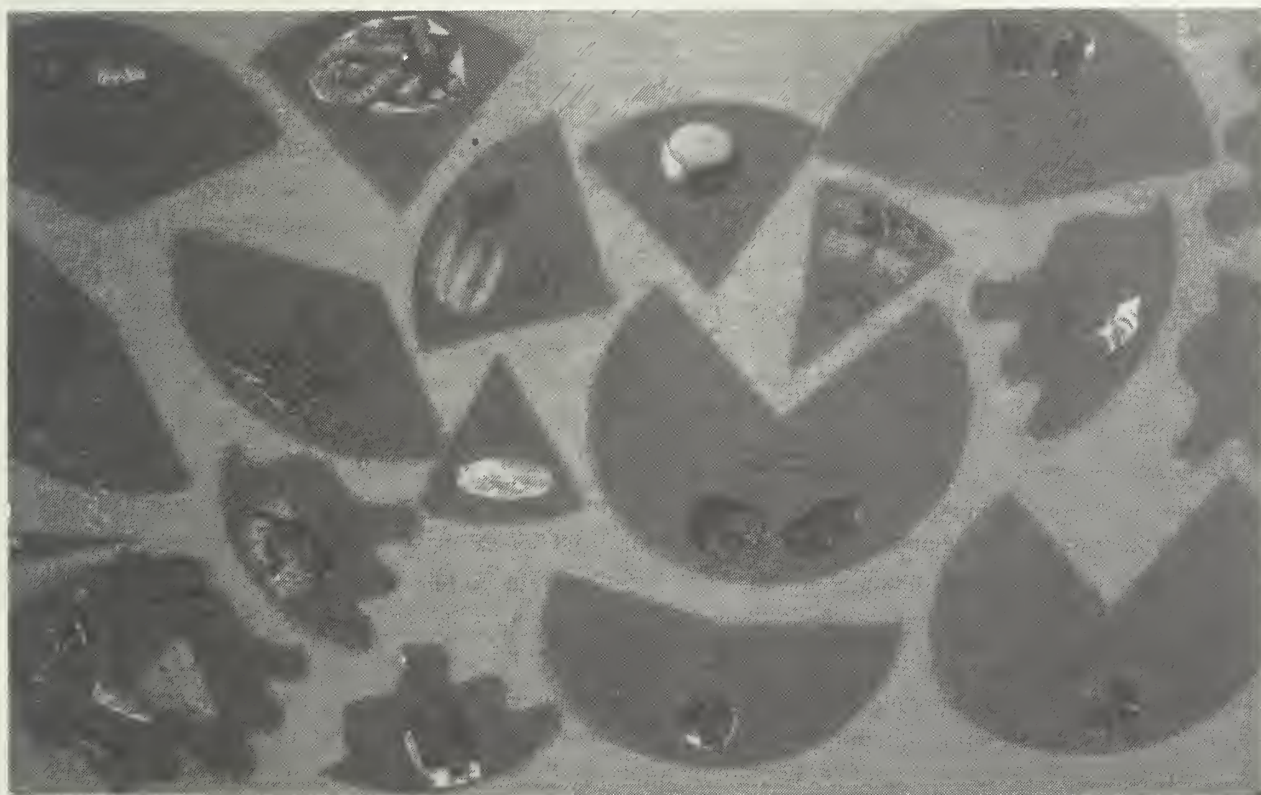
At this station Shirley Rauh provided enough information to hold the students for awhile, and she used questions to guide them in their perusal of it. Dittoed answer sheets could be added.

Loretta Shrowang's station used real fabric samples, pictures of fabrics in use, and folded cards to provide multiple choice items on the outside and right answers on the inside. Each line asked the question: If this fabric is used for this purpose, what finishes would it need? The answer also included explanations of why the finish would be desirable.





Joyce Porter enabled her students to see that adequate amounts of vitamin C are available without citrus fruits, via a "puzzle." Omitting the citrus fruits, she showed the proportion of RDA for Vitamin C provided by many common foods in pie-shaped pieces which, when fit together in a complete circle, equalled the RDA (i.e., 100%). Foods which had no Vitamin C had irregular shapes and did not "fit."



Many possibilities exist, in all areas of home economics subject matter, for these self-teaching materials. They are also useful for "make-up work" when students have been absent.

Sometimes students can make the self teaching materials and set up the stations when they have had the opportunity to study some area in depth and use this means of sharing their learning with their classmates.

#### Communication

Communication skills are among the most valuable for teachers as well as their students. Some helps in learning and teaching these skills are found in TIPS AND TOPICS, Vol. XV, No. 2, December 1974, a publication from the College of Home Economics of Texas Tech University, Lubbock, 79409. If you are not a subscriber, you may want to consider joining that "family". Back issues are available for 75¢. Connie R. Sasse is Editor.

Second Annual  
Alumnae Conference  
University of Illinois

A Message From the Undergrads in Home Economics Education

Isn't it time you came by for a visit? Do you need some motivation to get you here? If you graduated in Home Economics Education there is a conference planned ESPECIALLY FOR YOU by the undergraduate Home Economics Education Student Seminar.

**WHEN:** Saturday, March 15, 1975  
9:30 a.m. to 3:00 p.m.

**WHERE:** Education Building, Room 22  
University of Illinois at Urbana-Champaign

You will hear of the latest developments in Metrics, Child Development, Family Relations, Nutrition and other areas.

To let us know you are coming, send us your registration by February 15, 1975. Bring your friends!

☐ I plan to attend the Undergraduate Home Economics Education Seminar. Enclosed is my registration fee of \$2.50 (includes lunch).

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Year Graduated \_\_\_\_\_

Mail to:

Home Economics Education Seminar  
c/o Illinois Teacher  
351 College of Education  
University of Illinois  
Urbana, Illinois 61801

A Day in the Life of a Part-time Student, Scholar, Mother,  
Wife, Counselor, Maid, Cook, Funeral Director, Teacher, Archaeologist . . .

by Eleanor McBride, EPDA Fellow  
Graduate Student in Home Economics Education  
University of Illinois

The day began normally enough. I got up, showered, mothered the kids, fixed their breakfast (Why, oh, why, can't John get over this French toast kick — if it continues much longer he's just *bound* to break out in either hives or the language), signed the papers for school, rounded up "extra milk" money, untied the knots from two nasty sneakers, put the dog out to do her thing, brushed two heads of hair, washed the dishes, and repeated cheerfully, "Have a good day" three times and meant it. Then I dressed and left for school. No — before, (just before), I left for school, I discovered that the dog had done her thing in the living room last night. Cleaned it up.

For the next two hours I was part of an orderly, quiet life. Great! The mind begins to function once more. I'm a student! I *can* be creative! Uh, oh, class time ends. Dash off to meet the man in my life for lunch! I'm late, but then so is he. Whew. A tranquil lunch with intelligent and interesting conversation, and it's back to school and room 22. (The H.E.Ed. Resource Center.)

Great, I found the articles I was searching for and carefully marked them with a paper clip for later xeroxing. I collected the other materials I needed to duplicate, grabbed my plastic bag of coins, and trudged off down the hall to the duplicating machine. The machine was empty. Dilemma. Oh, well, by tomorrow it will probably have been serviced and will be operative again. Back to room 22 (or in recent weeks I've thought — back to the nest).

Where ever did I get all these papers? More goodies for my FILE. We've (my husband and I) been referring to the File in capital letters for the past several weeks. It has come to be the hub of our household. It rules over the dining room table, the piano, under the hunt board, and in the new ice chest. It grows like a colony of mold.

It's one-thirty. Where was I to be at two? Oh, yes — the Small Homes Council library to do research on our mobile home project. We found just the book we need to inform us, but we can't check it out. Well, anyway, they have a xerox machine. Grace and I make a list of the pages we'd like duplicated and give it to the office man. *His* xerox machine is not working either. Incredible! Ok, I'll go back tomorrow to pick up the copies.

Editor's Note: The following true story is included to introduce you to another "new face" in home economics, an example of the many new faces of this type that we need, to illustrate the reality of her situation and how she copes, and also to provide a few laughs.

Hurry! There is a Special Events Committee meeting at church at four. I told the chairman that it would be hard for me to be there then, but at his insistence agreed to attend. This was to be the maiden meeting, and we were to get organized.

Then — a quick phone call home. Did the children get home from school ok? Are they all right and do they remember the arrangements we worked out for babysitting? Yes. On to the church and the special events.

I arrive two minutes early. There is one other lady, the vicar, and the committee chairman who is busily mopping the parish hall floor. Twenty minutes later, he's still mopping the floor and no one else has arrived. I begin to have an inkling of what constitutes special events. Finally the committee chairman declares the meeting open. Another lady arrives.

What's special about the event? We get to be responsible for setting up for and cleaning up after events. We're special. (I must remember to try that tack with my three the next time household chores come up for reassignment.) We accomplish in seventy-five minutes what could have been done in ten, or in three phone calls. Nothing definite, you understand, but we've "organized."

Since I'll be so late getting home, I'll run by the IGA and try to pick up an entree and something for supper. That way I'll still be able to make it to John's school for my 7:20 appointment with his teacher. When I get home, however, the bag breaks and fried chicken and potato salad end up in the drive. The chicken is ok, but the potato salad has some gravel in it. Shh! I scoop off the gravel and the top layer of potato salad.

I've only been home a few minutes (long enough to put away the ice cream and "see" Diana's school papers) when a cry of distress from Diana, age 7, grade 2, brings me running. She's been loving (holding) one of the 4-week-old gerbils and it got away from her. The dog finds the gerbil — steps on it, and the gerbil lies bleeding under the humidifier. When I lift off the humidifier, it is obvious that the baby is about to die. Diana is hysterical. The others all lash out at her verbally. She is just crushed.

I take her into another room and we snuggle into a bean bag chair to grieve. I realize that this is Diana's



first close experience with death, and I must try to handle the situation with tact and clarity. Since she had been told *not* to take the babies from the cage, part of her grief includes guilt feelings. What approach shall I take?

As she begins to calm down, we talk about how she feels. It hurts, she says. She wishes the gerbil hadn't died; she hates Candi (the dog); she wishes something else had died, etc. I try to point out that it isn't the end of the world, that better a gerbil than a person, and that sometimes we grown-ups make rules for protection — like the rule about not taking the babies out of the cage — and if the rules aren't followed, we sometimes get into trouble. She wails "I know." After much hugging and talking, she is calm enough for me to attempt to get supper served. Oh yes, we also had to hunt up a box suitable in size for gerbil burial. The gerbil was duly buried. Amen. The chicken and the de-gravelled potato salad are doled out, the milk poured, and the rest of the meal served.

Now — to John's school. John is 9, grade 4. I made it with four minutes to spare. His teacher has a good report on him. He has won first place in the art contest, and he is doing especially well in social studies. (She says she feels that this is partly because John has been to so many places. I'm delighted to find out our camping trips are having a lasting effect on John.) She says her only problem is his day dreaming during reading. I hate to tell her, but that's just John. He can tune out like an expert. His forte is art and other physically creative activities. She gives me some stories he has written — they're priceless, very creative. I'll store them in my secret drawer with the other priceless efforts of our children. If we can just ever harness his creativity, that boy will make a place for himself!

The teacher asks if either Blan (Blan — age 37, grade ???) or I can come to the class one day to give a

talk on archaeology. (She's heard of our experiences visiting digs, Indian villages, and other ruins). I explain that Blan is the one to do the teaching — he's the expert — and besides, I'm to begin student teaching next week. Fine, says she, and we tentatively set a date for Blan's visit. Hopefully, we can locate some fossils or artifacts to add interest to the visit.

On to Diana's school for my 8:20 appointment with her teacher. Again, a good report. She's doing very well in all her work, is well accepted by the other children, and is excelling in music! (Wonder where she picked up that talent?) Her printing is beautiful and her language (structure, use, understanding) good. I clue her teacher on the events of today with Diana and the gerbil, in case Diana shows any emotional reaction in school. She and I agree that Diana is especially sensitive, yet in many ways quite mature. Normal for this age.

I'm proud of our children. The two younger ones are doing well in school, and Beth (age 12, grade 7) is also excelling in her school work. But even more important I feel good about their emotional stability. For example, last night Beth and her friend were allowed to shop a few minutes, and Beth's only purchase was a pair of bikini panties for Diana. Well, Diana has been complaining for months that all her panties are baggy and babyish! So, Beth bought on impulse and Diana was thrilled. Of course, the panties were a size 12, 2 sizes too large, but she wears them with pride! And I was pleased that Beth had thought of her little sister while I was in class.

And so I'm home again, the day is whirling to a close, and I'm about to begin my school work. It's eleven o'clock. Baths are finished, teeth brushed (I think), the dog has once again done her thing — this time on the floor of our room. Bless Beth, she got it up.

Thought for the day: Ain't college grand?

#### NOTICE

We are experimenting this year to see if *Illinois Teacher* mailed without protective covers will arrive in good condition. Please let us know if yours does not.

## IN-SERVICE EDUCATION OPPORTUNITY

Are you learning or re-learning the metric system? In Issue Number 2 we began a correspondence course, "The Home Economics Teacher and Metrics." The introduction and first two lessons appeared in that issue. Lessons three and four are in the current issue. The remaining issues of this volume will contain the remainder of the course. We hope you will take advantage of this unique in-service education opportunity!

### LESSON THREE

#### AREA

#### Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your response sheets.

\_\_\_\_\_ Pretest

#### *Objectives for the lesson*

The student will:

- \_\_\_\_\_ (1) utilize the metric knowledge she has learned about length (Lesson Two) in determining metric areas.
- \_\_\_\_\_ (2) solve area problems using metric units of measurement.
  - a. compute area when given length and width dimensions
  - b. compute area after measuring length and width dimensions
- \_\_\_\_\_ (3) estimate areas in metric units.
- \_\_\_\_\_ (4) learn the symbols  $\text{cm}^2$ ,  $\text{m}^2$ , ha; their meanings; and the relationship of units to each other.
- \_\_\_\_\_ (5) be aware that there are certain teaching strategies which facilitate learning the metric system.

#### *Materials needed*

- \_\_\_\_\_ Metric measuring tools utilized in lesson two
- \_\_\_\_\_ Additional materials, such as string, are needed to complete some of the optional activities.

#### *Resources you may explore (Optional)*

- \_\_\_\_\_ Department of Commerce. *Education*. Washington, D.C.: U.S. Superintendent of Documents. Stock No. 0303-0858, \$2.30. (May be available in library)

#### *Activities*

- \_\_\_\_\_ Reviewing information presented in lesson two
- \_\_\_\_\_ Solving area problems
- \_\_\_\_\_ Estimating areas in metric units
- \_\_\_\_\_ Determining the relationships between metric units such as square millimetres, square centimetres, square metres, square kilometres and hectares
- \_\_\_\_\_ Developing an awareness of the teaching strategies which facilitate learning the metric system
- \_\_\_\_\_ Completing the response sheets and returning them to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

#### *Evidence of learnings*

- \_\_\_\_\_ Fulfilling the objectives
- \_\_\_\_\_ Completing and returning the response sheets
- \_\_\_\_\_ Taking the post test

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. The student who is not familiar with the metric system will probably finish the lesson in no more than eight hours. The student with a knowledge of the metric system will be able to complete this lesson in considerably less time.

### Optional activities

- Estimate, measure, and calculate the areas of your living space or teaching space in metric units. Make a metric floor plan from this information.
- Using a long string, measure off metre lengths and knot the string every metre. Now the string can be used to measure the length dimension of large areas. (Most string stretches so the results will be "approximate.") Determine the area of your lot or school property in metric units. Students might like to determine the metric area of the school swimming pool, football field, baseball field or tennis courts.
- A bank recently gave a prize to the first property owner who correctly determined the size of his/her property in metric units. You might wish to adapt this idea to your classroom or school organizations to encourage students to measure and think in metric units.
- Do you remember the formulas you used to determine the areas of circles, triangles, and other geometric shapes? Using your metric measuring tools, measure actual objects and utilize the formulas to determine the areas of these objects in metric units.

### PRETEST LESSON THREE

The following questions will acquaint you with the material covered in lesson three. You are not expected to know the answers now and this test will NOT be used in your evaluation. The questions will help to introduce you to the concepts and help you recognize the important ideas when they appear in the lesson.

*Write the letter indicating the correct answer for each statement on the response sheet. You will find the answers as you work the lesson.*

1. How much carpet would a room 3 metres long and 4 metres wide require?
  - a. 12 metres
  - b. 12 square metres
  - c. 14 metres
  - d. 12 metres square
2. Which of the following is the symbol for square centimetres?
  - a.  $\text{cm}^2$
  - b. sq cm
  - c.  $\text{cms}^2$
  - d.  $\text{cm}^3$
3. How many square centimetres are there in 1 square metre?
  - a. 100
  - b. 1 000
  - c. 10 000
  - d. 100 000
4. The metric unit that will probably be used to measure land area is
  - a. metre
  - b. kilometre
  - c. morgan
  - d. hectare
5. One square centimetre contains
  - a.  $100 \text{ cm}^2$
  - b.  $100 \text{ mm}^2$
  - c.  $1\,000 \text{ mm}^2$
  - d.  $100 \text{ cm}^3$



## RESPONSE SHEET: LESSON THREE

The following lesson contains a number of questions followed by blanks with numbers. The answers are to be written on THIS sheet by the corresponding number. These response sheets are to be returned to your instructor. It is suggested that you keep a copy of these sheets since the University cannot assume responsibility for assignments lost in the mail. **HINT:** If you do not wish to remove these pages from the journal, they can be duplicated with the aid of a copy machine.

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_

Votec x399 B

Print your name and address within  
the box indicated above.

The post test will be evaluated but the answers to the pretest and questions in the lesson will **NOT** be used to influence your final grade. The instructor uses the response sheet to find concepts that may not have been clear or items you may have misunderstood or are having trouble learning. You will find an answer sheet at the end of the lesson which will provide immediate feedback for many of the questions. It does not contain the answers for the pretest or post test. Please add additional comments if you desire.

*Write your answers below.*

### PRETEST

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_

### LESSON THREE

- |          |           |
|----------|-----------|
| 1. _____ | 7. _____  |
| 2. _____ | 8. _____  |
| 3. _____ | 9. _____  |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |

19. \_\_\_\_\_  
20. \_\_\_\_\_  
21. \_\_\_\_\_  
22. \_\_\_\_\_  
23. \_\_\_\_\_  
24. \_\_\_\_\_  
25. \_\_\_\_\_  
26. \_\_\_\_\_  
27. \_\_\_\_\_  
28. \_\_\_\_\_ 29. \_\_\_\_\_ 30. \_\_\_\_\_ 31. \_\_\_\_\_  
32. \_\_\_\_\_ 33. \_\_\_\_\_ 34. \_\_\_\_\_ 35. \_\_\_\_\_  
36. \_\_\_\_\_ 37. \_\_\_\_\_ 38. \_\_\_\_\_ 39. \_\_\_\_\_  
40. \_\_\_\_\_ 41. \_\_\_\_\_ 42. \_\_\_\_\_ 43. \_\_\_\_\_  
44. \_\_\_\_\_ 45. \_\_\_\_\_ 46. \_\_\_\_\_ 47. \_\_\_\_\_  
48. \_\_\_\_\_ 49. \_\_\_\_\_ 50. \_\_\_\_\_ 51. \_\_\_\_\_  
52. \_\_\_\_\_  
53. \_\_\_\_\_ 54. \_\_\_\_\_ 55. \_\_\_\_\_ 56. \_\_\_\_\_  
57. \_\_\_\_\_ 58. \_\_\_\_\_ 59. \_\_\_\_\_ 60. \_\_\_\_\_  
61. \_\_\_\_\_ 62. \_\_\_\_\_ 63. \_\_\_\_\_ 64. \_\_\_\_\_  
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70. \_\_\_\_\_  
71. \_\_\_\_\_  
72. \_\_\_\_\_ 73. \_\_\_\_\_ 74. \_\_\_\_\_  
75. \_\_\_\_\_ 76. \_\_\_\_\_ 77. \_\_\_\_\_  
78. \_\_\_\_\_ 79. \_\_\_\_\_ 80. \_\_\_\_\_  
81. \_\_\_\_\_ 82. \_\_\_\_\_ 83. \_\_\_\_\_  
84. \_\_\_\_\_ 85. \_\_\_\_\_ 86. \_\_\_\_\_  
87. \_\_\_\_\_ 88. \_\_\_\_\_ 89. \_\_\_\_\_  
90. \_\_\_\_\_ 91. \_\_\_\_\_ 92. \_\_\_\_\_

93. \_\_\_\_\_  
94. \_\_\_\_\_  
95. \_\_\_\_\_

#### POST TEST

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |

Please add additional comments if you desire.

Return the three (3) response sheets to Judy Oppert, 352 Education, University of Illinois, IL 61801. Include your return address and place the correct amount of postage on the envelope. (We pay postage on graded lessons returned to you.) You have finished three of the eight lessons in the course. Lesson four is also in this issue of the *Illinois Teacher of Home Economics*.

#### LESSON THREE

This lesson will include the following items:

- I Review of length
- II Computing areas
- III Relationship of metric units
- IV Teaching strategies

As in previous lessons, the Lesson Guide contains the objectives, activities, and ways to provide evidence of learnings. In addition, there is information about resources and optional activities. The lesson guide does not need to be returned for evaluation with your assignment.



## REVIEW OF LENGTH

Lesson two included the metric units used to measure length, their symbols, and their equivalents in our customary system. We used some metric measuring tools and began estimating lengths in metric units. Let us briefly review.

In the metric system the basic unit of length is the *(Write your answer on the response sheet.)*

\_\_\_\_\_ (1) \_\_\_\_\_.

The symbol for this metric unit is

\_\_\_\_\_ (2) \_\_\_\_\_.

To measure this unit of length we use a tool called a

\_\_\_\_\_ (3) \_\_\_\_\_.

Compared to a yard, is this metric unit shorter, the same length, or longer?

\_\_\_\_\_ (4) \_\_\_\_\_.

When we *divide* the basic unit of length in the metric system into smaller units, we call the smaller units

\_\_\_\_\_ (5) \_\_\_\_\_ or

\_\_\_\_\_ (6) \_\_\_\_\_.

To measure these units we might use a tool called a

\_\_\_\_\_ (7) \_\_\_\_\_.

These smaller units have symbols. These symbols are

\_\_\_\_\_ (8) \_\_\_\_\_ and

\_\_\_\_\_ (9) \_\_\_\_\_.

To measure long distances we *multiply* the basic unit of length by 1000 and we call this new metric unit the

\_\_\_\_\_ (10) \_\_\_\_\_.

The symbol for this unit is

\_\_\_\_\_ (11) \_\_\_\_\_.

When measuring in the metric system we use

\_\_\_\_\_ (12) \_\_\_\_\_ instead of inches.

Instead of yards we use

\_\_\_\_\_ (13) \_\_\_\_\_.

and instead of miles we use

\_\_\_\_\_ (14) \_\_\_\_\_.

Would the width of a head of a pin be equal to 1 mm, 1 cm, or 5 cm?

\_\_\_\_\_ (15) \_\_\_\_\_.

Would the width of your little fingernail be approximately equal to 1 mm, 1 cm, or 5 cm?

\_\_\_\_\_ (16) \_\_\_\_\_.

Would the length of a mile be approximately equal to 200 m, 1 km, or 1,5 km?

\_\_\_\_\_ (17) \_\_\_\_\_.

## COMPUTING AREA

Home economists compute areas of rectangles when they determine the amount of living area in a floor plan, the amount of floor covering needed in a room, or the amount of paint to buy for a wall. To determine area we use linear measurement, and we measure the length and width of the rectangle. How many dimensions does area have?

(18)

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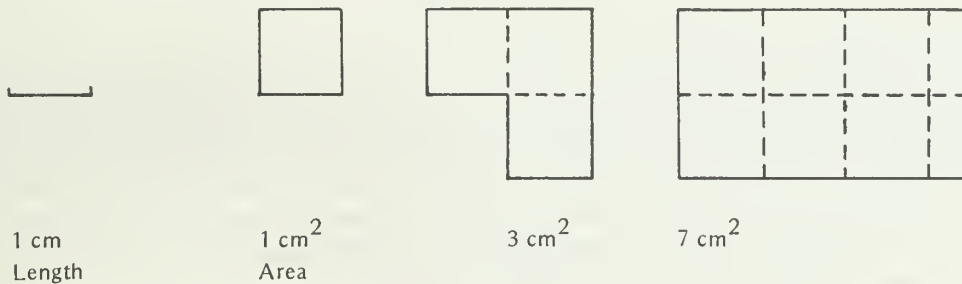
To find the area of a given space we multiply the length times the width ( $A = L \times W$ ). A postage stamp is approximately 2,5 cm long and 2 cm wide. What is its area? (Note that a comma is used to indicate the placement of the decimal point instead of a period.\*)

What is its area?

(19)

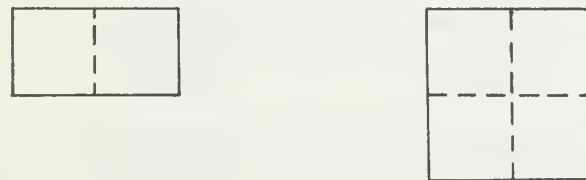
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Did you notice that we squared the centimetres in the answer for number 19 above? This is because area is measured in square units. Imagine that square units cover the surface of a region. An illustration follows showing length (one dimension), area (two dimensions) and larger areas containing several square units.



Note that the drawings of area are *not* three dimensional. They are not cubes.

One square centimetre may be symbolized as 1 cm<sup>2</sup>. When the units are written out it is important to notice the order of the words. Example: Two square centimetres is an area of that size. Two centimetres square refers to a square that measures 2 centimetres on each side and, thus, has an area of 4 square centimetres.



Two Square Centimetres

Two Centimetres Square

In lesson two we learned that 1 centimetre contains 10 millimetres. If we have a square centimetre, how many square millimetres will it contain? (Hint:  $A = L \times W$ ).

(20)

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\*The countries adopting and using the metric system are not in agreement about the use of the decimal comma. Some countries are arguing that the decimal point should be used and others are arguing that the decimal comma should be used. The comma is being used in these lessons to acquaint you with this practice. When we use the comma as a decimal sign, we can not use a comma to separate thousands in long numbers. Therefore, we use a space instead of a comma. Example: 1 582 694. Dates, such as 1974, are written without a space. When numbers are written in sequence they are separated by semicolons to avoid confusion. Example: 6; 4; 2,4; 5

Did you remember to indicate that the units in your answer were square units?

(21)

What is the area, in square centimetres, of each of the following?

A rectangle that is 3 cm long and 4 cm wide = (22)

A rectangle that is 5,5 cm long and 4 cm wide = (23)

A rectangle that is 6,2 cm long and 1,8 cm wide = (24)

A square with one side which is 3 cm = (25)

A square with one side which is 4,2 cm = (26)

A rectangle that is 3 cm long and 40 mm wide = (27)

Did your answer for number 27 agree with the answer on the answer sheet? Did you notice that we changed the units of the width dimension? To calculate an area problem, the units of both dimensions must be the same. To change millimetres to centimetres, we divide by ten or move the decimal one place to the left. Remember the area problem you calculated in lesson one? You had dimensions containing both feet and inches and you had to change the dimensions to inch measurements before you could multiply. It is easier to use metric measurements in determining area because the units of measurement can be changed with ease. Another advantage of using metric measurements to determine area is that we do not have to multiply common fractions.

Small areas are usually measured in square centimetres ( $\text{cm}^2$ ). To obtain practice using your centimetre ruler, thinking in metric units, and calculating metric areas, measure the length and width of six small areas and fill in the following table. Measure the distance in centimetres to the nearest 0,1 centimetre, and calculate the areas in square centimetres ( $\text{cm}^2$ ).

OBJECT	LENGTH	WIDTH	AREA (Include the Units)
(28)	(29)	(30)	(31)
(32)	(33)	(34)	(35)
(36)	(37)	(38)	(39)
(40)	(41)	(42)	(43)
(44)	(45)	(46)	(47)
(48)	(49)	(50)	(51)

On the chalkboard or a large piece of paper we can measure off a square measuring 1 metre by 1 metre. This is called one square metre and its symbol is  $1 \text{ m}^2$ . How many square centimetres does it contain? (Hint: Remember the formula for area?)

(52)



The square metre ( $m^2$ ) is used in determining surface areas of rooms and in building, construction and remodeling. The square metre is about 20 per cent larger than a square yard.

Measure the dimensions of three areas in metres to the nearest 0,1 metre and calculate the areas in square metres.

OBJECT	LENGTH	WIDTH	AREA (Include the Units)
(53)	(54)	(55)	(56)
(57)	(58)	(59)	(60)
(61)	(62)	(63)	(64)

As home economists we will probably utilize the square metre and square centimetre units. Another metric unit that will be used in real estate and land surveys is the hectare. A hectare is about 2,5 times the size of an acre. Each dimension of a hectare measures 100 metres. The symbol for hectare is ha. Notice that we do not need to square this unit, because, like acre, it already means a quantity of square units.

In this lesson we have talked about finding the areas of squares and rectangles. To determine the areas of other shapes, such as triangles and circles, use the formulas you learned in geometry and math class and the appropriate metric measurements. Remember that you need to make sure the units used in each measurement are the same.

It is important to use the skill which you are developing so it will continue to grow. Look around you and estimate the metric area of three objects or spaces. Continue doing this each day so your "think metric" skill will continue to increase.

### RELATIONSHIP OF METRIC UNITS

You have already found that a square centimetre contains  $100\text{ mm}^2$  and that a square metre contains  $10\,000\text{ cm}^2$ . We need to determine the relationship of these units to other metric units in order to see how they all fit together. One of the easiest ways to help yourself and your students visualize the relationships and areas is to cut actual squares measuring one square centimetre, one square decimetre and one square metre from heavy paper. (A square millimetre is too small to be able to handle conveniently.)

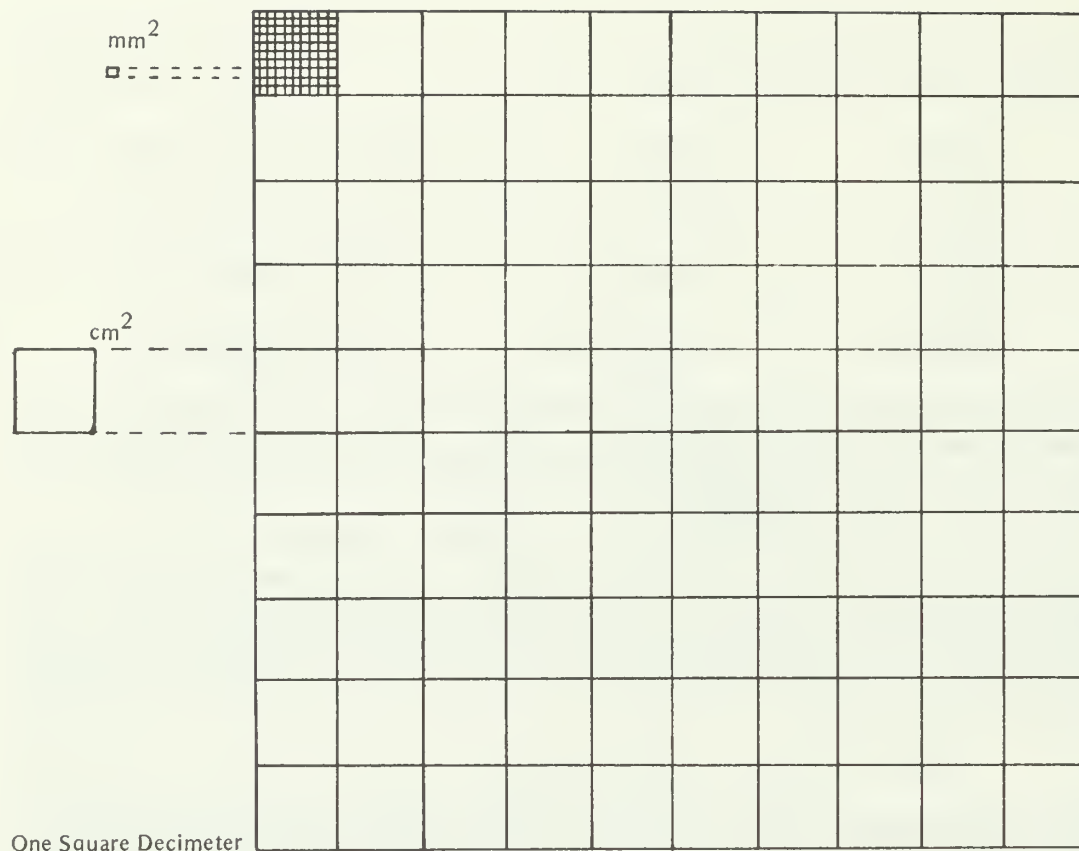
We know the square centimetre contains

(65) \_\_\_\_\_  $\text{mm}^2$ .

You may wish to draw in these units on one centimetre square. In lesson two we mentioned decimetres and we said they probably would not be used very often. One decimetre contains ten centimetres. Therefore, one *square* decimetre contains (remember the formula)

(66) \_\_\_\_\_.

Perhaps this illustration will help you visualize the relationships we have been talking about.



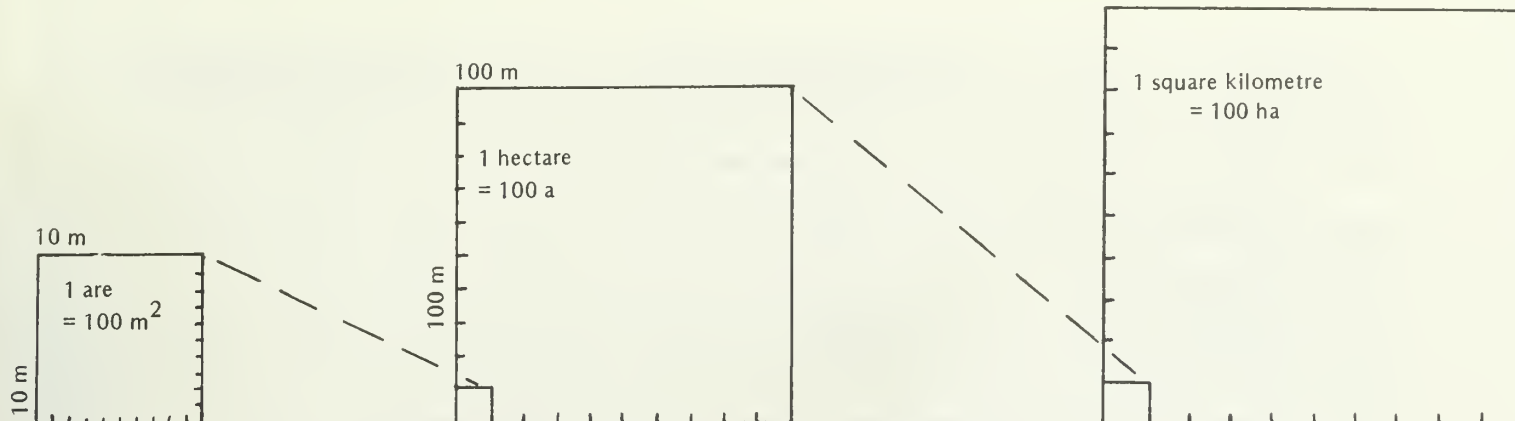
One metre contains 10 decimetres. Therefore, one square metre contains

(67) .

Like the decimetre, there is another unit in the metric area units which we probably will not use very often but it is useful in developing the relationship between units. It is called *are* (pronounced AIR) and it contains 100 square metres. An average house covers about two *ares*. Notice that the *are* is a unit of area and, therefore, the unit is not squared.

Earlier we talked about the hectare. One hectare contains 100 *ares*. Hecto- is a prefix, like centi- and kilo-, and it indicates that the unit is multiplied 100 times.

In the lesson on length we talked about kilometres. A square kilometre contains 100 hectares. The following illustration shows the relationship of these larger units. (This diagram is not drawn to scale.)



The relationships of metric area are summarized in the following table.

Metric Area

Unit	Symbol	Relationship of Units
square centimetre	cm <sup>2</sup>	1 cm <sup>2</sup> = 100 mm <sup>2</sup>
square decimetre	dm <sup>2</sup>	1 dm <sup>2</sup> = 100 cm <sup>2</sup>
square metre	m <sup>2</sup>	1 m <sup>2</sup> = 100 dm <sup>2</sup>
are	a	1 a = 100 m <sup>2</sup>
hectare	ha	1 ha = 100 a
square kilometre	km <sup>2</sup>	1 km <sup>2</sup> = 100 ha

Can you determine the relationship between hectares and square metres? We already know that a kilometre contains 1000 metres. Therefore, a square kilometre contains

(68) .

From the above table we find that one square kilometre contains

(69) .

Thus, 1 km<sup>2</sup> = 1 000 000 m<sup>2</sup> = 100 ha  
and 10 000 m<sup>2</sup> = 1 ha

(Divide by 100, that is, move the decimal 2 places to the left.)

Now let us pretend that we saw a real estate advertisement that said a square metre of land was selling for a rate of \$10 and a hectare was priced at \$100,000. We can quickly determine that it is no less expensive per metre if we purchase the entire amount. If we decided to purchase 50 per cent of a hectare we would own

(70) .

An average lot is about 20 per cent of a hectare. Therefore, at the above price a lot would cost

(71) .

The commonly used metric units of area will probably be the square centimetre, square metre and hectare. You will seldom need to utilize the other units as a consumer.

To help develop a feeling for the square centimetre and square metre and the relationships between them, measure four areas in metres to the nearest 0,1 metre and calculate the areas. Then convert the measurements to centimetres and calculate the areas. Try to measure different objects than you did for answers 53-64.



OBJECT	LENGTH, WIDTH, AREA IN METRES	LENGTH, WIDTH, AREA IN CENTIMETRES
(72)	(73)	(74)
(75)	(76)	(77)
(78)	(79)	(80)
(81)	(82)	(83)

Now estimate the metric areas of three other surfaces. Then measure and calculate the actual areas.

OBJECT	ESTIMATED AREA	MEASURED AREA
(84)	(85)	(86)
(87)	(88)	(89)
(90)	(91)	(92)

Do you feel comfortable using metric units? The easiest way to learn them is by using them.

What metric units would you use when determining the area of a piece of typing paper?

(93)

What metric units would you use when determining the area of a room?

(94)

What metric units would you expect to be used when describing real estate?

(95)

### TEACHING STRATEGIES

We frequently observe that people teach as they have been taught. Therefore, I am utilizing some strategies that I hope you will utilize when you teach metrics. There are some reasons why I have chosen to use these strategies and I thought it might be helpful if I explained them at this time.

Did you think we began with very simple concepts? There were several reasons why I tried to avoid complex or difficult ideas at the beginning of the course. First, the metric system really is an easier measurement system to use than our present system. Many people are afraid of the change to metrics because they are still having trouble giving equivalents for bushels, hogsheads and morgans, and these units are in our customary measurement system. It is only when the learner realizes that there are a few basic units (i.e., metres, litres, grams) and standard prefixes that always refer to the same divisions and multiples (milli-, centi-, kilo-) that the simplicity of the metric system becomes obvious. There is another reason for beginning with simple concepts. Researchers have found that correspondence course students are more likely to begin a course when the first lessons are simple and interesting. Many teachers apply this idea in the classroom, too. Students are motivated to begin the study of a subject when the teacher begins at a level that is easy to comprehend. Even complex theories of physics or statistics can be introduced in very simple terms. Perhaps students feel they already know the elementary parts and they can learn the more difficult aspects if they study.

Were you aware of the emphasis on actually measuring with metric tools and estimating in metric units in the lessons? Many other countries have converted, or are in the process of converting, to the metric system of measurement. A lot can be learned from studying the educational ideas and activities that were, and were not, successful in these countries. Two of the activities that the literature advocates are active measuring by the students and practice in estimation. The phrases "learning by doing" and "hands on" experiences are frequently used.

Did you notice the phrase "think metric" in the lessons? It has been found that people learn the metric system much faster and easier if they use the metric system rather than using their old system and converting the old measurements to metric measurements. People who convert seldom learn the metric system. It is like learning a new language. You never "learn" the language until you can think in the language. You never feel comfortable with the new system until you stop translating from the old system. This is why I haven't told you the number to multiply by the number of inches in order to obtain centimetres. I did include a few equivalents so you could estimate and feel comfortable. As professional home economists we may have to use conversions to help consumers update their recipe books and so on. There are literally hundreds of conversion tables, charts, slide rules, graphs and calculators. The work has already been done for us — all we need to do is obtain an accurate conversion device and use it. In the meantime we need to learn the metric system ourselves!

We will talk more about teaching metrics later in the course. I hope this explanation helps you understand the "whys" for some of the things that are included in the lessons.

#### POST TEST

*Write the letter indicating the correct answer for each statement, without looking back at your lesson, on the response sheet. The answer sheet does not include the answers for these questions.*

1. Which of the following is the symbol for square centimetres?
  - a. sq cm
  - b. cms<sup>2</sup>
  - c. c<sup>2</sup>m
  - d. cm<sup>2</sup>
2. One square centimetre contains
  - a. 100 square millimetres
  - b. 100 millimetres square
  - c. 1 000 mm<sup>2</sup>
  - d. 10 000 square millimetres
3. How many square centimetres are there in 1 square metre?
  - a. 100 000
  - b. 10 000
  - c. 1 000
  - d. 100
4. The metric unit that will probably be used to measure land area is
  - a. morgan
  - b. hectare
  - c. kilometre
  - d. metre
5. How many square metres are in an *are*?
  - a. 100
  - b. 1 000
  - c. 10 000
  - d. 100 000

6. What metric units would you use when determining the area of a room?
  - a. square centimetres
  - b. ares
  - c. square metres
  - d. hectares
7. How many square metres does a hectare contain?
  - a. 100 000
  - b. 10 000
  - c. 1 000
  - d. 100
8. How many dimensions does area have?
  - a. 4
  - b. 3
  - c. 2
  - d. 1
9. The following numbers are measurements of rectangles. Which has the largest area?
  - a. 3 centimetres x 5 centimetres
  - b. 2 centimetres x 5,8 centimetres
  - c. 0,1 metre x 4 centimetres
  - d. 10 centimetres square
10. Students find the easiest way to learn the metric system is to
  - a. convert the measurements in their old system to metric
  - b. use only the metric system to measure
  - c. buy a metric converter
  - d. learn the metric equivalents for their old system

Don't forget to write your answers on the response sheets under "Post Test."

### ANSWER SHEET

- |                                     |   |
|-------------------------------------|---|
| 1. metre                            | 22. 12 cm <sup>2</sup>                                  |
| 2. m                                | 23. 22 cm <sup>2</sup>                                  |
| 3. metre stick                      | 24. 11, 16 cm <sup>2</sup>                              |
| 4. longer                           | 25. 9 cm <sup>2</sup>                                   |
| 5. centimetres or millimetres       | 26. 17, 64 cm <sup>2</sup>                              |
| 6. millimetres or centimetres       | 27. 12 cm <sup>2</sup> or 1200 mm <sup>2</sup>          |
| 7. centimetre ruler or tape measure | 28.-51. You are on your own!                            |
| 8. cm and mm                        | 52. 10 000 cm <sup>2</sup>                              |
| 9. mm and cm                        | 53.-64. You are on your own!                            |
| 10. kilometre                       | 65. 100   |
| 11. km                              | 66. 100 cm <sup>2</sup>                                 |
| 12. centimetres                     | 67. 100 dm <sup>2</sup>                                 |
| 13. metres                          | 68. 1 000 000 m <sup>2</sup>                            |
| 14. kilometres                      | 69. 100 ha  |
| 15. 1 mm                            | 70. 5 000 m <sup>2</sup> or \$50,000 or 0, 5 ha or 50 a |
| 16. 1 cm                            | 71. \$20,000  |
| 17. 1, 5 km                         | 72.-92. You are on your own!                            |
| 18. 2                               | 93. square centimetres                                  |
| 19. 5 cm <sup>2</sup>               | 94. square metres                                       |
| 20. 100 mm <sup>2</sup>             | 95. hectares  |
| 21. --                              |   |



LESSON FOUR  
VOLUME  
Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your response sheets.

\_\_\_\_\_ Pretest

*Objectives for the lesson*

The student will:

- \_\_\_\_\_ (1) acquire and use a metric measuring cup or similar metric volume measuring tool.
- \_\_\_\_\_ (2) learn the terms litre and millilitre, the amounts they refer to, and their symbols.
- \_\_\_\_\_ (3) learn to calculate volume and the relationships between metric units of volume.
- \_\_\_\_\_ (4) be able to indicate equivalent metric units of volume for our customary units.
- \_\_\_\_\_ (5) estimate volume in metric units.

*Materials needed*

- \_\_\_\_\_ Metric measuring cup and customary measuring cup
- \_\_\_\_\_ Liquid, such as water, to measure
- \_\_\_\_\_ Empty quart and half-gallon milk cartons

Some of the optional activities require additional materials.

*Resources you may wish to acquire (Optional)*

- \_\_\_\_\_ Metric measuring cup, plastic, 500 ml (98¢ or 60¢ with home economics professional discount), #21501 from housewares department of stores or  
Housewares Division  
Foley Manufacturing Company  
3300 N.E. Fifth Street  
Minneapolis, Minn. 55418
- \_\_\_\_\_ Pyrex measuring cups manufactured since September 1, 1974, have metric units on one side and customary units on the other. Available in housewares department of stores.
- \_\_\_\_\_ Tri-pour Beaker Set, six graduated, unbreakable beakers, 50 ml, 100 ml, 250 ml, 400 ml, 800 ml and 1000 ml (\$1.65), #7-831 to 7-836, from\*  
Spectrum Educational Supplies Limited  
9 Dohme Avenue  
Toronto, Ontario, Canada, M4B 1Y7
- \_\_\_\_\_ Litre jug, translucent plastic (\$1.20), #5181 from  
Math Shop Inc.  
5 Bridge Street  
Watertown, MA. 02172

\_\_\_\_\_ Decimetre cubes, cardboard, package of 6 (\$2.00) #M0132, from  
Sargent-Welch Scientific Company  
7300 North Linder Avenue  
Skokie, IL 60076

### *Activities*

- \_\_\_\_\_ Reviewing information presented in lesson three
- \_\_\_\_\_ Calculating volume
- \_\_\_\_\_ Measuring metric volumes
- \_\_\_\_\_ Determining the relationships between metric volume units such as litre and millilitre
- \_\_\_\_\_ Estimating volume in metric units
- \_\_\_\_\_ Completing the response sheets and returning them to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

### *Evidence of learnings*

- \_\_\_\_\_ Completing the objectives
- \_\_\_\_\_ Having a tool for measuring metric volume
- \_\_\_\_\_ Completing and returning the response sheets
- \_\_\_\_\_ Taking the post test

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. The student who is not familiar with the metric system will probably finish the lesson in no more than eight hours. The student with a knowledge of the metric system will be able to complete this lesson in less time.

### *Optional activities*

- \_\_\_\_\_ Determine the volume or capacity of familiar items such as dishes, pans, bottles, and appliances in metric units and label them.
- \_\_\_\_\_ Working with a group of your students, set up a metric store. You might use cartons and containers currently found in stores and "round" them off to the nearest even metric units (100 millilitres, 500 millilitres, 1 litre and so on). Encourage students to compare prices and discuss the advantages and disadvantages of using the metric system in the marketplace.
- \_\_\_\_\_ Construct a cubic decimetre from cardboard or purchase one. Also purchase or have small cubes of wood cut the size of a cubic centimetre. Line up ten cubes and compare them to one dimension of the decimetre. Try to develop labels that will indicate the relation of centimetres, millilitres, decimetres, and litres.
- \_\_\_\_\_ Find a number of different shaped containers that each hold a litre or fill a number of different shaped containers with one litre of colored water each. Do the quantities in the various containers appear to be equal? In addition, you may wish to measure the dimensions of the containers and numerically calculate the volume.

PRETEST  
LESSON FOUR

The following questions will acquaint you with the material presented in lesson four. You are not expected to know the answers now and this test will NOT be used in your evaluation. The questions will help to introduce you to the concepts and help you recognize the important ideas when they appear in the lesson.

*Write the letter indicating the correct answer for each statement on the response sheet. You will find the answers as you work the lesson.*

1. Of the following units, which is a metric unit of volume?
  - a. cup
  - b. litre
  - c. pound
  - d. metre
2. One millilitre is equivalent to
  - a. 1 cubic centimetre
  - b. 1 cubic millimetre
  - c. 1 centimetre squared
  - d. 1 square millimetre
3. The litre is approximately equal to
  - a. cubic yard
  - b. square foot
  - c. gallon
  - d. quart
4. The symbol for litre is
  - a. L
  - b. l.
  - c. ℓ
  - d. always written out.
5. The symbol for cubic centimetre is
  - a. cc
  - b.  $\text{cm}^3$
  - c.  $\text{cc}^3$
  - d.  $\text{cm}^2$
6. One litre is
  - a. equal to a quart
  - b. less than a quart
  - c. greater than a quart
  - d. equal to a gallon
7. One litre contains
  - a. 250 ml
  - b. 500 ml
  - c. 1000 ml
  - d. 2000 ml
8. Our customary pint will be approximately equal to
  - a. 250 ml
  - b. 500 ml
  - c. 1000 ml
  - d. 2000 ml
9. Our customary cup will be approximately equal to
  - a. 250 ml
  - b. 500 ml
  - c. 1000 ml
  - d. 2000 ml
10. Our customary tablespoon will be approximately equal to
  - a. 250 ml
  - b. 100 ml
  - c. 50 ml
  - d. 15 ml



## RESPONSE SHEET: LESSON FOUR

The following lesson contains a number of questions followed by blanks with numbers. The answers are to be written on **THIS** sheet by the corresponding number. These response sheets are to be returned to your instructor. It is suggested that you keep a copy of these sheets since the University cannot assume responsibility for assignments lost in the mail. If you do not wish to remove these pages from the journal, they can be duplicated on a copy machine.

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_

Votec x399 B

Print your name and address within  
the box indicated above.

The post test will be evaluated but the answers to the pretest and questions in the lesson will **NOT** be used to determine your final grade. The instructor uses the response sheet to find concepts that may not have been clear or items you may have misunderstood or are having trouble learning. You will find an answer sheet at the end of the lesson which will provide immediate feedback for many of the questions. It does not contain the answers for the pretest or post test. Please add additional comments if you desire.

*Write your answers below.*

### PRETEST

### LESSON FOUR

- |  |  |   |
|--|--|---|
| <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p> <p>8. _____</p> <p>9. _____</p> <p>10. _____</p><br><p>21. _____</p> <p>22. _____</p> <p>23. _____</p> <p>24. _____</p> <p>25. _____</p> <p>27. _____</p> <p>29. _____</p> <p>31. _____</p> <p>33. _____</p> | <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p> <p>8. _____</p> <p>9. _____</p> <p>10. _____</p><br><br><br><br><br><br><br><br><br><br><p>26. _____</p> <p>28. _____</p> <p>30. _____</p> <p>32. _____</p> <p>34. _____</p> | <p>11. _____</p> <p>12. _____</p> <p>13. _____</p> <p>14. _____</p> <p>15. _____</p> <p>16. _____</p> <p>17. _____</p> <p>18. _____</p> <p>19. _____</p> <p>20. _____</p> |
|--|--|---|

35. \_\_\_\_\_
36. \_\_\_\_\_
37. \_\_\_\_\_
38. \_\_\_\_\_
39. \_\_\_\_\_
40. \_\_\_\_\_

#### POST TEST

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |

Return the two (2) response sheets to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801. Include your return address and place the correct amount of postage on the envelope. (We pay postage on graded lessons returned to you.) You have finished four of the eight lessons in the course! Lessons five and six will be in the next issue of the *Illinois Teacher of Home Economics*.

### LESSON FOUR

This lesson will include the following topics:

- I Review of area
- II Calculating volume
- III Litre
- IV Millilitre

#### REVIEW OF AREA

In lesson three we concentrated on area. To calculate area we utilized the units of length which were the subject of the second lesson. Linear measurement has one dimension. How many dimensions does area have? (Write your answer on the response sheet.)

\_\_\_\_\_ (1) \_\_\_\_\_

To calculate the area of a given space we multiply the

\_\_\_\_\_ (2) \_\_\_\_\_

times the

\_\_\_\_\_ (3) \_\_\_\_\_ .

What is the symbol for the unit of area that is based on the centimetre?

(4)

How many square centimetres does a square metre contain?

(5)

The metric unit that will be used for real estate and land surveys is

(6)

How many square metres does it contain?

(7)

What metric units would you use when determining the area of a room?

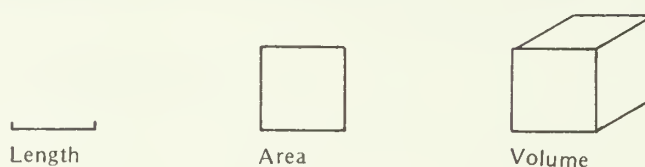
(8)

What metric units would you use when determining the area of a text book cover?

(9)

### CALCULATING VOLUME

The subject of this lesson is volume and volume has *three* dimensions. The following diagram illustrates the concept of dimension.



Volume is a measure of space occupied or capacity. It is the amount of space taken up by something. Volume is utilized in many ways in home economics. In the United States we usually state the amounts of ingredients in recipes as units of volume. The size of casseroles, pitchers, bowls, and pans is frequently given in units of volume. Food and beverages are frequently packaged and sold in volume units. The interior capacity of refrigerators and freezers is frequently given in volume units.

Our customary measurement system is confusing because it has two different sized units for measuring quarts. There is a U.S. liquid quart and a U.S. dry quart and they are not the same size. If you have traveled in another country you may have found the British Imperial quart which is still different from the U.S. pair of quarts. Confusing isn't it? The metric units for volume are much simpler because there is one basic unit and additional units are derived from it.

The metric system was designed in such a way as to relate the quantities of length and capacity. This is not true in our customary measuring system but if it were, one of our volume units (i.e., quart) would have to be based on one of our length units (i.e., foot). Examples of this concept are used in this lesson.

To determine length, we measured the distance with a metric measuring tool. To calculate area we measured two dimensions, length and width, and multiplied one dimension by the other. To calculate volume we multiply the length times the width as we did in area, and then we multiply the result by the height. As in area, all of the units must be the same. To indicate volume we cube the units (i.e.,  $m^3$ ).

We can figure the volume of large objects, like railroad boxcars. What is the volume of a boxcar which is 6 metres long, 2 metres wide and 3 metres high?

(10)

Just as we found there were several new terms to indicate metric areas (*are* and hectare), there are several new terms to indicate metric volume. One term we will be using frequently is the litre.

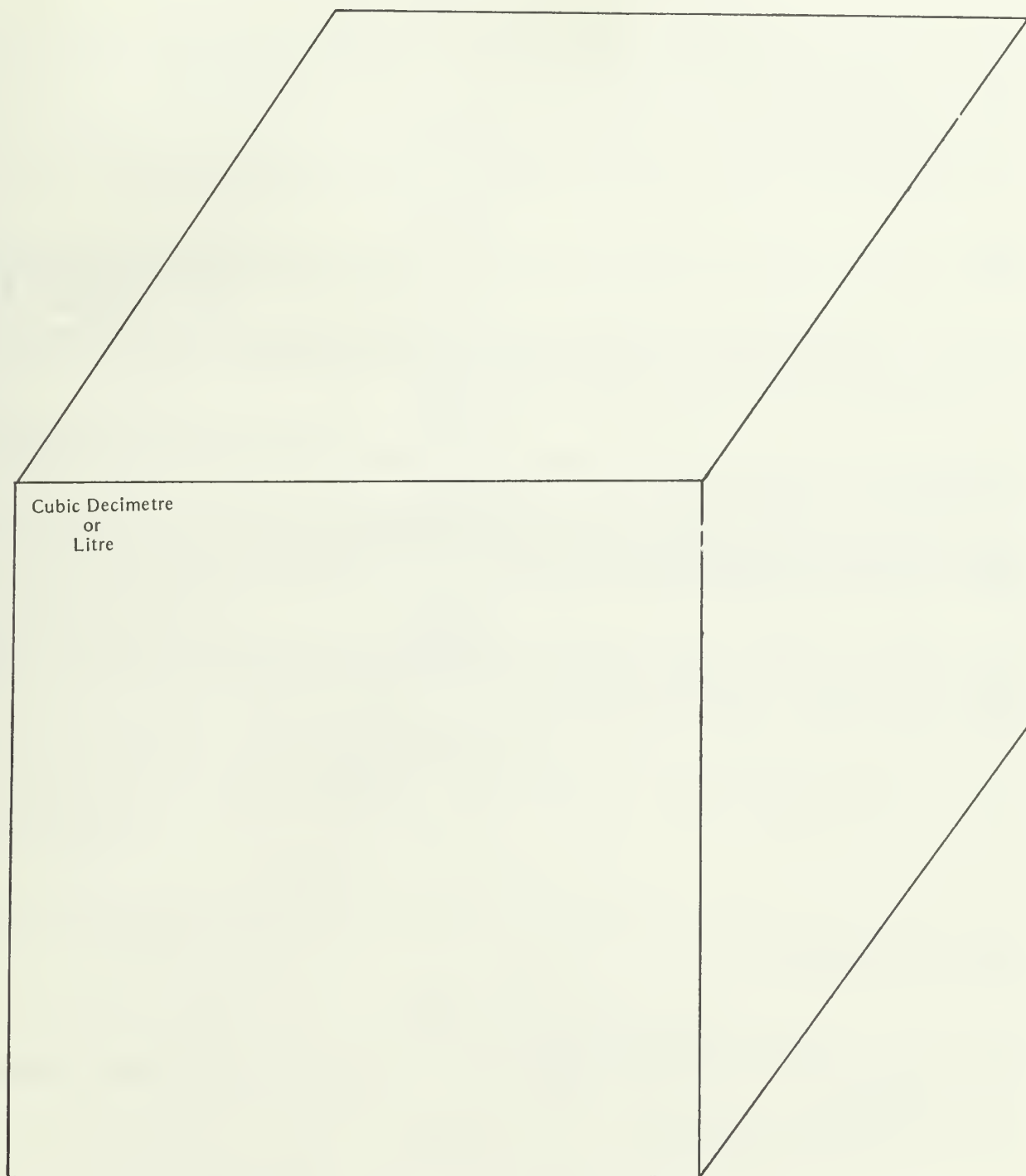


## LITRE

The most common unit for measuring volume in the metric system is the litre. It is similar to a quart. Look at a quart milk carton and imagine that it was 5 per cent LARGER. This would be a litre. The litre is slightly larger than the U.S. liquid quart and smaller than the U.S. dry quart. How does the litre compare to the U.S. liquid quart?

(11)

Another way to visualize a litre is to picture a three-dimensional decimetre.



One decimetre x one decimetre x one decimetre =  $1 \text{ dm}^3 = 1 \text{ litre}$ . This is an example of the relationship between length and volume in the metric system.

Small changes in the dimension of a container will make very great differences in the amount of material the container will hold. Volume can be very deceptive! You can see how this happens by looking at the following calculations. If we had four cubes, each one measuring one unit larger on each dimension, we find the cubes have large differences in capacity.

DIMENSIONS OF CUBES		CAPACITY
$1 \times 1 \times 1$	=	1
$2 \times 2 \times 2$	=	8
$3 \times 3 \times 3$	=	27
$4 \times 4 \times 4$	=	64

Does the diagram of the litre above look like it is about the same size as a quart milk carton?

(12)

Does the half-gallon milk carton look like it would hold twice as much as the quart milk carton?

(13)

NOTE:

Some companies are putting the following information on their milk cartons:

**HALF GALLON**  
(1.89 Litres)

If you can

find similar cartons in your store you may wish to purchase one for an example.

The most common unit for measuring metric volume is the

(14)

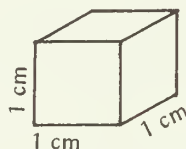
The symbol for this unit is a small letter  $\ell$  without a period. When you are writing this symbol be sure that it can be distinguished from a number one.

#### MILLILITRE

For small amounts of materials the millilitre will be used. We learned in lesson two that milli- is a prefix and it means

(15)

Thus a millilitre is  $1/1000$  of a litre. Another way to determine this relationship is to calculate the volume of a litre.  $10 \text{ cm} \times 10 \text{ cm} \times 10 \text{ cm} = 1000 \text{ cm}^3$ . Like the litre, the millilitre related to a quantity of length, the centimetre. The millilitre is equivalent to a cubic centimetre.



Cubic Centimetre ( $\text{cm}^3$ ) or Millilitre

Drugs, especially liquid medicines, are often dispensed in these units. Seasonings may be measured in these units. The symbol for this small unit is

(16)

Please note that cubic centimetre does NOT have the symbol cc.

The teaspoon we now use is APPROXIMATELY equal to 5 millilitres and the tablespoon is APPROXIMATELY equal to 15 millilitres.

Do you have a metric measuring cup?

(17)

Some stores are now selling metric measuring cups. If you cannot find one, you can order one (see "Resources you may wish to acquire" on the Study Guide). Note: This measure may not be called a "cup" in the future, but we will call it a "metric cup" for now.

Measure one cup of water with our customary liquid measuring cup and pour it into the metric measuring cup. How many millilitres are in our customary liquid measuring cup?

(18)

How many millilitres are in the metric measuring cup?

(19)

One of the anticipated advantages of changing to the metric system is that container sizes will be standardized so they hold a convenient "even" volume. Thus, cartons would hold 500 millilitres, one litre and two litres rather than 232 millilitres or 467 millilitres. The "awkward" number you obtained for answer 19 above will probably be "rounded" off to 250 millilitres.

Rather than multiplying one dimension by another and then another, let us use the metric volume measure to determine the capacity of some containers. Will your quart milk carton hold a litre? Using your metric measure, determine how many millilitres the quart milk container will hold.

(20)

How many cubic centimetres are needed to fill the same milk carton?

(21)

How many millilitres are equivalent to 0,50 litre? (Remember the comma replaces the decimal point.)

(22)

How many millilitres are equivalent to 0,25 litre?

(23)

How long would it take you to drink 250 millilitres of liquid? 500 millilitres? As more companies convert to metrics, vending machines will probably have 500 millilitre (half-litre) cartons of milk and soda. Milk will probably be in 1 litre, 2 litre or 4 litre containers. Perhaps pans will come in 500 millilitre (half-litre), litre and 2 litre sizes. Some fruits, such as strawberries, will probably be in litre boxes. In general, will the quantity of material in metric-size containers be larger or smaller than it is now?

(24)

Therefore, the cost will change, too. However, there will be an advantage for the consumer because she/he can easily compare the cost per unit. Even if there are three sizes of containers they might be 500 ml, 1 litre (1000 ml), and 2 litres (2000 ml). It is quite easy to figure the cost per litre for all three sizes!

Try determining the volume of some containers that you frequently use. What is the metric capacity of a water glass, serving bowl, cereal bowl, and so on? You may wish to use your metric volume measure or calculate the volume by measuring the dimensions.

OBJECT	VOLUME
<u>(25)</u>	<u>(26)</u>
<u>(27)</u>	<u>(28)</u>
<u>(29)</u>	<u>(30)</u>
<u>(31)</u>	<u>(32)</u>
<u>(33)</u>	<u>(34)</u>



To measure large volumes the cubic metre will be used. We might use this term to describe the amount of space in a refrigerator or freezer. Contractors might use it to describe the amount of concrete they need, and engineers might use it to describe the amount of water in a lake.

An easy way to use the metric system of volume and to practice estimating is to use your metric volume measure in the kitchen. Keep it near the sink and put the water or milk you are adding to soup, gravy and so on in the volume measure first. Note the amount you use and you will be developing your metric skills!

Let us briefly review. Our customary cup is approximately equal to

(35) .

A pint is approximately equal to

(36) .

A quart is approximately equal to

(37) .

A tablespoon is approximately equal to

(38) .

A teaspoon is approximately equal to

(39) .

One litre contains

(40) .

You have now completed four of the eight lessons in the course. Congratulations!

#### POST TEST

*Write the letter indicating the correct answer for each statement, without looking back at your lesson, on the response sheet. The answer sheet does not include the answers for these questions.*

1. Volume is
  - a. measured in centimetres
  - b. a measure of capacity
  - c. two dimensional
  - d. an area measure
2. One millilitre is equivalent to
  - a. 1 square millimetre
  - b. 1 centimetre squared
  - c. 1 cubic millimetre
  - d. 1 cubic centimetre
3. One litre is
  - a. equal to a quart
  - b. less than a quart
  - c. greater than a quart
  - d. equal to a gallon

4. The symbol for litre is
  - a. 1.
  - b. L
  - c. ℓ
  - d. always written out
5. The symbol for cubic centimetre is
  - a. cc
  - b.  $\text{cm}^3$
  - c.  $\text{cc}^3$
  - d.  $^3\text{cc}$
6. What is the volume of a container measuring 30 cm x 15 cm x 0,5 m?
  - a. 0,0225  $\text{m}^3$
  - b. 2250  $\text{cm}^3$
  - c. 225 ml
  - d. 22,5 ℓ
7. One litre contains
  - a. 2000 ml
  - b. 1000 ml
  - c. 500 ml
  - d. 250 ml
8. Our customary teaspoon will be approximately equal to
  - a. 50 ml
  - b. 15 ml
  - c. 0,5 ml
  - d. 5 ml
9. Our customary pint will be approximately equal to
  - a. 500 ml
  - b. 250 ml
  - c. 1500 ml
  - d. 1000 ml
10. Our customary tablespoon will be approximately equal to
  - a. 250 ml
  - b. 100 ml
  - c. 50 ml
  - d. 15 ml

Don't forget to write your answers on the response sheet under "Post Test."

# ANSWER SHEET

1. 2
2. length or width
3. width or length
4.  $\text{cm}^2$
5. 10 000  $\text{cm}^2$
6. hectare
7. 10 000  $\text{m}^2$
8. square metres
9. square centimetres
10. 36  $\text{m}^3$

11. It is larger.
12. no
13. no
14. litre
15. .001
16. ml or  $\text{cm}^3$
17. yes
18. 236.6 ml
19. 250 ml
20. 1 000+ ml

21. 1 000+  $\text{cm}^3$
22. 500 ml
23. 250 ml
24. larger
- 25.-34. You are on your own!
35. 250 ml
36. 500 ml
37. 1 litre or 1 000 ml
38. 15 ml
39. 5 ml
40. 1 000 ml or  $\text{cm}^3$

## REQUEST FOR WITHDRAWAL PRIOR TO COMPLETION

Name \_\_\_\_\_

Date \_\_\_\_\_

Street Address \_\_\_\_\_

Course (s) \_\_\_\_\_

Title No.

City \_\_\_\_\_ State \_\_\_\_\_

Title No.

Having carefully read the regulations which set forth the only conditions under which refunds can be granted, and realizing that all authorizations for refunds are subject to audit, not only by the University Comptroller, but by the State Auditor as well, to insure that any such authorization be in conformity with this rule, I certify:

1. that no refund is indicated under the rule..... \_\_\_\_\_
2. that because of withdrawal within six weeks from date of enrollment, I qualify for the partial refund allowable under those circumstances. I have *not* submitted more than five assignments for this course..... \_\_\_\_\_
3. that because of physical incapacitation over the major portion of the entire eligible period, I qualify for a refund one-half of the tuition. I have *not* submitted more than half the assignments for this course..... \_\_\_\_\_

*(Any such claim of physical incapacitation must be authenticated by appropriate documentary evidence in the form of a physician's certificate and is not to be requested earlier than the seventh month of enrollment.)*

Date \_\_\_\_\_

Signature \_\_\_\_\_

Please make additional comments below:





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# ILLINOIS TEACHER OF HOME ECONOMICS

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## TEACHER TO TEACHER



Spring is here at last. I've looked forward to spring since the last warm, sunny day of fall (winter isn't one of my favorite seasons). I begin to plan and make resolutions each spring the way some people do with the coming of a new year. Perhaps it's my teacher "orientation" that causes me to begin making plans for the coming school year and probably many of you do too. I get excited about ordering new materials, planning for new courses, meeting new students, trying new techniques, and anticipating the unknown. We hope this issue of the *Illinois Teacher* will help you generate some new ideas and enthusiasm for your teaching just as it, and the spring weather, have for me.

The first series of articles deals with evaluation of vocational programs and students. Dr. Judy Brun discusses the rationale for program evaluation and suggests some references to assist program evaluators. Dr. Margaret V. Barkley focuses on grading as part of the evaluative process and in subsequent articles describes two evaluation devices. Mrs. Karen Robertson shares three evaluation devices that she developed in an evaluation course that Dr. Barkley taught last summer at the University of Illinois.

The second series of articles contains ideas for program development. Mrs. Kathryn McCormick describes a bakery simulation that she has conducted the past two years and Mrs. Karen Morton describes the Child Care Occupations program at her high school.

Mrs. Joyce Richardson has some helpful ideas for maximizing the benefits that students derive from resource people in the classroom and career visits (field trips) to work sites.

The final articles deal with career education teaching materials. Mrs. Louie Kemp describes the development of some teaching packages for the exploration of Home Economics related careers. The last article consists of several short stories about Home Economics related careers written by Mrs. Mary Doggett.

Graduate course offerings in Home Economics and Home Economics Education at the University of Illinois for the 1975 summer session are listed on the last page of this issue.

Mildred Barnes Griggs  
*Editor for this Issue*





# EVALUATING OCCUPATIONAL PROGRAMS

Judy K. Brun  
*Assistant Professor  
Home Economics Education  
University of Illinois  
Urbana, Illinois*



You are conducting an occupational program in home economics in which you are training students for employment in home economics related occupations. You sometimes talk with your students, with colleagues, or with your school's vocational director about your program. You tell them in general terms about the program and what you think of it.

Later you say to yourself, "What if I really have to justify my program? What if my principal asks me for proof that I'm spending the taxpayers' money wisely? What answers will I give other than the general, conversational comments I've made in the past?"

## EVALUATION AS A BASIS FOR ANSWERS

Evaluation of occupational programs is a necessary and logical part of the vocational education process. If conducted well, the results of evaluation can serve a variety of functions. For example:

1. *Evaluation of occupational programs is needed to determine the effectiveness of the teaching-learning process.*

What if evaluation is not an integral part of the teaching-learning process? What if evidence is seldom gathered to determine the effectiveness of the teaching-learning process? As a responsible educator, think for a moment of the results of a lack of evaluation in your area of occupational education.

More and more frequently one reads that the major goal of education is to change or develop pupil behaviors in desirable directions. When writing educational objectives these desired behaviors of pupils are described. As Gronlund states, "...evaluation is the process of determining the extent to which these objectives are being achieved."<sup>1</sup>

In occupational programs, as in other educational experiences, one must look for evaluative evidence to support the assumption that objectives are being achieved. We can then say that one function of program evaluation is to determine educational effectiveness and, therefore, provide a basis for *program improvement*.

2. *Evaluation of occupational programs is needed to make decisions about the curriculum.*

The topic, bases for curriculum decisions in vocational education, is a lengthy one deserving separate consideration. However, regardless of which scholar's model of curriculum development is followed, evaluation is involved at each step of the process.

For example, when writing objectives, one makes decisions about which behaviors to include and which one to ignore on the basis of evaluative information. Specifically, it may be decided to include an objective related to attitudes toward work while ignoring one on safety procedures on the job. One makes this decision because of some evaluative data one has. The teacher may have given the students a pre-test, observed them on the job, or known what these students experienced in previous courses.

Any evaluative method that has asked the right questions and has resulted in reliable information will help significantly in helping make the best possible decisions about the curriculum. A second function of program evaluation therefore, is providing information for *program planning*.

3. *Evaluation of occupational programs is needed to provide data for reporting to students, parents, colleagues, administrators, state agencies, etc.*

---

<sup>1</sup>Gronlund, Norman E., *Measurement and Evaluation in Teaching*. Second Edition. New York: The MacMillan Company. c1971, p. 9.

Some educational philosophers see this purpose of evaluation as secondary to the central goal of improving the teaching-learning process. However, with the recent demand for increased accountability in education this purpose has become more important. It may be that if all those involved in the educational process—whether they are consumers, taxpayers, or decision makers—have these data, they will be in a better position to do things which will result in the improvement of the educational process. A third purpose of program evaluation, then, is to provide statistics. Along with the other two purposes, this gives a sound basis for *program justification*.

### EVALUATION NEEDS A FOCUS

Brophy, et. al., suggest that program evaluation "... may focus on what has been done, what is being done, and/or what might be done."<sup>2</sup> Steele appears to support this in saying: "Although there are many contributions that evaluation can make to education and the educator, its most important role is that of contributing to decisions about the program while it's in process or to decisions about further and future programing."<sup>3</sup> Kreutz, in *A Strategy for Program Development and Evaluation in Home Economics* suggests that one "Develop [a] program for systematic evaluation of learner's progress, curriculum, instruction and management."<sup>4</sup>

In determining the focus that program evaluation needs to take, there are two other educational concepts that need to influence the evaluators' decisions. These are (1) formative and summative evaluation, and (2) the three domains of educational goals.

### Formative Vs. Summative Evaluation

Evaluation is a continuous process. Recently, the terms formative and summative evaluation have been used to further clarify the fact that evaluation is not something that is done only at the end of a course of program.

The focus of formative evaluation is on that which takes place "... during the formation of learning ..." and, if used properly, "... can do much to

ensure that the outcomes of instruction are attained by the largest proportion of the learners."<sup>5</sup> Summative evaluation is that which takes place at the end of instruction. This may occur at the end of a unit, a course, or a degree. It is often more formalized than formative evaluation and is more likely to consist of paper and pencil devices which may yield numerative data.

In making decisions about focus of evaluative procedures in the classroom and in the occupational program ask yourself, "Am I guilty of conducting my evaluation only as a summative process? Do I only look at the end product? Or, am I constantly gathering information and making continuous adjustments in my teaching activities on the basis of this information?"

### Cognitive—Affective—Psychomotor

In most occupational programs, objectives in all three domains—cognitive, affective, and psychomotor—are likely to be appropriate. However, the important thing to remember is to focus evaluation on all domains that *are* included in the program. For example, if one has objectives related to attitudes and values, then one should find methods for evaluating these affective behaviors. In many occupational programs the advanced phases deal with developing job skills. Here, then, evaluation needs to focus on psychomotor behaviors.

It is often difficult to evaluate affective behaviors. The following references may be of help in clarifying this task.

1. Bloom, Benjamin S., J. Thomas Hastings, and George F. Madaus. *Handbook on Formative and Summative Evaluation of Student Learning*. Chapter 10, "Evaluation Techniques for Affective Objectives." New York: McGraw-Hill. 1971.
2. Cross, Aleene. *Home Economics Evaluation*. Columbus, Ohio: Charles E. Merrill. 1973. Refer to Index under "Personal qualities (affective)."
3. Gronlund, Norman E. *Measurement and Evaluation in Teaching*. Second edition. New York: Mac-

<sup>2</sup>Brophy, Kathleen, Arden Grotelueschen, and Dennis Gooler. "A Blueprint for Program Evaluation." Occasional Paper Number One. Urbana, Illinois: College of Education. February, 1974. p. 2.

<sup>3</sup>Steele, Sara M. "Program Evaluation—A Broader Definition." *Journal of Extension*. Pp. 5-17. Summer 1970. p. 7.

<sup>4</sup>Kreutz, Shirley. *A Strategy for Program Development and Evaluation in Home Economics*. Washington, D. C.: American Vocational Association, 1973. p. 29.

<sup>5</sup>Bloom, Benjamin, J. Thomas Hastings, and George F. Madaus. *Handbook on Formative and Summative Evaluation of Student Learning*. New York: McGraw-Hill. c1971. p. 17.



# SEWING MACHINE OPERATION

	Requires more teacher help	Needs more practice	Performs skill adequately	Shows great proficiency
1. Names machine parts				
2. Fills bobbin				
3. Threads machine				
4. Regulates tension				
5. Regulates stitch length				
6. Stitches on stitching line				
7. Secures threads at beginning/end				

Figure 1. A checklist for evaluating a psychomotor skill.

Millan. 1971. See p. 531 for illustrative behavioral terms.

4. Indiana Home Economics Association. Evaluation in Home Economics 1974. 146pp. Copies available from University Book Store, 360 State Street, West Lafayette, Indiana 47906. \$3.00. A collection of evaluation devices, many in affective domain.
5. Popham, James W. and Eva Baker. Systematic Instruction. Englewood Cliffs, N. J.: Prentice-Hall, Inc. 1970.

Psychomotor skills are often time consuming to evaluate. Various checklists to improve efficiency may be developed which are appropriate for particular objectives. The format for such a checklist may be similar to the one illustrated in Figure 1. Here the behaviors are listed vertically and the evaluative criteria are described across the top.

## WHAT WE NEED TO KNOW ABOUT

Now that we have some perspective as to the focus for evaluation, it will be helpful to think about some specific questions to ask for gathering usable information about one's program. This task of evaluating home economics occupational programs may be approached by adapting materials currently in use in Illinois<sup>6</sup> for evaluation of all types of occupational programs.

Information may be gathered for five areas of concern or program characteristics. These areas of concern could be: students served, curriculum content, objectives, evaluation, and resources.

The question then is: What are the criteria to be used

in evaluating these five areas? Standards may be developed which can be used as guidelines for all programs. The key word is *guidelines*. It is very helpful to have criteria developed and stated in an article such as this; however, they should be considered only as guides. It is like using a travel service map to explore the Rocky Mountains. One may wish to wander from the suggested roads to tailor the exploration to fit one's own interest, needs, equipment, physical stamina, background, and/or previous experience.

Let's ask some questions in each of these five areas that can provide evaluative information but still leave the selection of what "should be" to you, the local evaluator.

## Students

Are students employable when leaving the program?

Are students familiar with the objectives and proposed outcomes of the program?

Is information about students' interests, needs and abilities gathered and used in making program decisions?

Is there a recruitment effort; a job placement service?

Are there efforts made for identifying and serving the unique needs of handicapped and disadvantaged students?

Does an active FHA-HERO chapter effectively serve as an integral part of the program?

## Curriculum

Are students adequately prepared for entry level em-

<sup>6</sup>Three Phase System for Statewide Evaluation of Occupational Education Programs. Springfield, Illinois: Division of Vocational and Technical Education, Bulletin Number 35-772, 1972.



ployment in home economics related occupations?

Is the content of occupational orientation courses (8th, 9th, and/or 10th grades) appropriate and articulated with the later courses?

Are the home economics occupational courses sequentially structured so that students can participate in a unified program?

Is there coordination between the home economics occupational program and other occupational programs in the school or district?

Is there an advisory committee which works with school personnel in developing curriculum?

### **Objectives**

Are objectives written so they provide adequate guidelines for learning experiences and evaluation?

Are objectives written for the total home economics occupational program and for specific courses and is there a logical relationship between the two?

How often are program and course objectives reviewed and revised?

Are teachers, administrators, students, and advisory committees all involved in establishing the program objectives?

Are students informed of the objectives for their program and for specific courses?

### **Resources**

To what extent are community personnel and facilities used in the home economics occupational program?

Are facilities and equipment in the school adequate and appropriate for the program that's being conducted?

Are financial resources adequate to support the needs of the program?

Are teaching staff assigned so that appropriate use is made of their expertise?

What role do students play in developing and carrying out the learning experiences?

### **Evaluation**

Is there an identifiable plan for evaluating the level of attainment of all objectives, whether cognitive, affective, or psychomotor?

Is there a follow-up conducted of graduates of the program?

What records are kept to facilitate a cost analysis of the program?

Are employers of students and of graduates surveyed?

Who is involved in the evaluation system?

How are the results of evaluation used?

These questions should provide a beginning for the development of an evaluation system which provides information for planning and revision of local home economics occupational programs. Questions may be added that were not suggested here. A set of specific questions may be developed to fall under some of the general questions suggested above.

If there is a large home economics occupational program, all teachers should work as a group to develop the evaluation system for the program. In a small department one could initiate this as an activity involving all occupational teachers.

### **USING THE RESULTS**

You will, of course, need to consider at each step of the process what use is to be made of the results. Most unappealing would be to have the written results gather dust on a shelf. Productive uses of the results can be in recommending and executing course revision, deleting from or adding to courses and programs, making changes in instruction, making modifications in work experience assignments, rearranging or adding to facilities, etc. But remember! Evaluation is a continuous process. One important use of the results of evaluation will be to suggest further evaluation, possibly with some changes being made in the evaluative process itself.

# TO GRADE OR NOT TO GRADE

Margaret V. Barkley  
*Professor of Home Economics*  
*Arizona State University*

"Shall I give Sue an 'A' even though she does not exert any effort to do the best work in the class? What grade shall I assign to Dan who tries so hard but fails every test?", asks the perplexed teacher. The grading problem, Brodinsky reports, has been a lengthy one for even in 1912 a study by Daniel Starch and Edward Elliott found that the same English paper received a variety of marks when submitted to 140 English teachers.<sup>1</sup> Some teachers assigned the paper a 90 while others indicated a failing grade for the same composition. Realizing that teachers were not infallible in assigning marks, there was a movement begun to change from percentage to letter grades. An acceleration of the efforts to replace the conventional grading system with a more humanistic approach is rapidly increasing. Minority parents have been very vocal in complaining that testing methods and traditional grading systems have not been fair to their children who may have language problems or other social and physical handicaps. Not all educators, though, wish to abolish the conventional grading system, for some educators believe they have the following advantages:

1. Grades give administrators a convenient way to assign students for scholarships, honors, and promotion.
2. College admission officers can select candidates for entrance with a minimum of difficulty.
3. Grades are often indicative of the study habits which a student maintains.
4. Society at large subjects individuals to being judged against other persons in similar situations so it is not unrealistic to use a rating system in public schools.
5. Parents can compare the performance of their sons and daughters with other students enrolled in the same classes.

6. Grades may motivate individual students to perform at a higher level. Without grades, students may not have any initiative to learn. This argument, however, is disputed by many educators.

The disadvantages of assigning letter or number grades completely outweigh the advantages, many educators believe. Some of these disadvantages are:

1. Letter or number grades are not reliable. Some teachers pride themselves on grading low while others tend to assign a high grade because they want to encourage students.
2. There is a tendency for the "halo effect" to operate in grading for prior information on one's first impression influences all other impressions. For example, if a student earns a reputation for being a good student, most teachers will judge him more favorably than a student who has a failing record established. Once the halo has been established, "cognitive dissonance" operates in that the teacher will tend to choose things that fit under his or her judgment and ignore the behavior that does not fit.
3. The mark in a class may be an end in itself, for the learner rather than his viewing the class experiences as opportunities to learn.
4. A single mark does not convey information effectively to a student's parent, college admission official or employer. The standard for an "A" in one school may be more rigorous than in another school so even the same grade does not have the same meaning.
5. Grades may not be related to the objectives of the school or course.
6. Grades may have a variety of side effects detrimental to the individual student. Those who chronically fail give up trying, cutthroat competition may occur among students, cheating and dishonest practices take place in order

---

<sup>1</sup>Ben Brodinsky, ed., *Grading and Reporting* (Arlington, Virginia: National School Public Relations Association, 1972).

to compete, and the high ranking students may feel superior to other students.

Glaser feels so strongly about students not failing in school that he suggests that the A-B-C-D-E system be replaced by the pass-superior system.<sup>2</sup> Students would be allowed to take a course over three times without the failure being recorded on the permanent record, but the last time the student would have to present justification as to why he or she should be allowed to repeat for the third time. Glaser also advises that objective tests not be used for evaluation but that every student turn in each week one or several discussion questions relevant to what was studied during the week. After the teacher revises them, the questions are handed back and these become essay items for the student for his final examination. Glaser feels that if the teacher cannot obtain thoughtful answers from the student the teaching may not have been relevant. A student would only be allowed to earn a superior in one class and the others would be taken on a pass-fail basis. In order to obtain a superior grade, the student would have to help a student who was having difficulty in the subject. Glaser also suggests that the failing student be encouraged to do some tutoring of lower grade students so as to have successful experience in school. This success may cause the student to study more so he or she is better prepared to help others.

Brodinsky reports that secondary schools are trying out a variety of plans with Pass/Fail, Credit/No Credit, Satisfactory/Unsatisfactory, and the listed categories are especially used for elective courses.<sup>3</sup> The most experimentation in marking and reporting has been accomplished in elementary schools. For example, Fullerton, California, permits parents of elementary students to choose between the letter-grade and non-letter-grade report. Also, a questionnaire is sent home to ascertain learning behavior observed at home, and a teacher-written evaluation and a year-end progress report are formulated. Parent conferences are used in many elementary schools but are rarely employed as part of the reporting system in secondary schools.

The CONTRACT SYSTEM may have merit when grades must be assigned. When a school system requires that grades be given, many teachers find the contract system makes it possible for students to decide for themselves what grades they want to earn. In order to develop a contract, a minimum list of course

competencies must be resolved. If more than one teacher is involved, this list should be done cooperatively, keeping in mind the overall performance objectives established for the course. To earn a "C" grade, a student must demonstrate the identified competencies. The student should be given more than one chance to demonstrate his or her competencies, and additional learning experiences should be provided for students who need further work in order to pass the competency being tested. Once the student has proven that he or she possesses the minimum competencies, then the student and teacher cooperatively plan what the student can do to enrich his education. To earn a "B", he must do a certain number of additional enrichment activities, depending upon the depth and length of them. For an "A" to be awarded, a student must be outstanding and complete a greater number of challenging experiences well. When the contract system is first initiated, the teacher may give many suggestions for earning higher marks, but as the student becomes accustomed to the system, more of the decision of assignments can be left up to the student. It is motivating for the student to set his goals at the beginning of the class, but he may change them any time that circumstances cause him to re-adjust his goals. Some teachers will not let students work for a higher grade once they have declared they wish to earn a "B", but this practice seems unwise because interest generated by the course may cause students to re-evaluate their goals and strive for higher ones. A contract for a beginning high school Child Development class might be something like this:

To earn a "C" you must satisfactorily accomplish the following:

1. Identify at least five characteristics of safe toys in writing and select at least five toys that display these characteristics.
2. List five broad characteristics each for two, three, and four year olds that are developing within normal range.
3. Pass a performance test on interacting with children with a score of at least 80.
4. Make an article to be used by a child (playing or book) and designate the age level for which it was constructed. Indicate why the article is appropriate for the designated age level. (You may substitute another experience for this.)
5. Complete a list of information to be used by a consumer when selecting one item used by

---

<sup>2</sup>William Glaser, M.D., *Schools Without Failure* (New York: Harper & Row, Publishers, 1969), pp. 215-228.

<sup>3</sup>Brodinsky, op. cit.



children—infant to 10 years of age. Some items that may be useful to do are cribs, strollers, pajamas, toys, playpen, or layette. (Plan format with the teacher.)

6. Turn in reports from observing a child at home or at school.

7. Read certain references.

To earn a "B", two extra projects may be required and an "A" grade involves four extra projects. Quality of work as well as quantity will be considered. Some possibilities for extra projects are listed below. You may, however, decide on some other ones, but you need the permission of the teacher before you begin. These projects must be carefully completed and show quality work.

1. Observe at a school for children with special handicaps. (Identify your objectives and plan an observation guide with your teacher.)

2. Interview five parents to determine the difference between children of the same age. What questions will you ask and why?

3. Read some references on day care service and develop a list of criteria for selecting a good day care center.

4. Visit the Poison Control Center and report to the class how it functions and why.

5. Plan and execute a children's party in which you will plan and supervise three activities. The party may be held at school.

6. Watch television commercials for a week. Analyze the affect they may have or are intended to have on children.

7. Identify three occupations which involve the care of children. Observe persons in these occupations. What tasks do they perform? What do you like and dislike about these occupations?

8. Assist a teacher in an elementary school. Read stories, supervise art projects, play games, and help with other activities. Write or record on tape you reactions to this experience.

In using the contract system it is very important that the teacher provide oral and written guidance so that quality projects can be more nearly guaranteed. The contract system leads to self-direction on the part of students, but some students may not be too comfortable without supervision; therefore, the teacher must judge the appropriateness of certain projects for individual students. You will note on the above contract, that there has been an attempt to incorporate career and consumer education into the child development course.

## TAB DEVICE: *A Technique for Evaluating*

The *tab device* is an evaluative instrument developed by the military so that testing could be accomplished without the use of expensive equipment. In the initial tab device, a diagram of malfunctioning electronic equipment was presented, and examinees were asked to indicate the solution to the problem. Once the examinee decided on the first step, he pulled a tab on a separate sheet of paper which gave him immediate feedback about the appropriateness of his initial suggestion. The device was scored by counting the number of tabs pulled. The larger the number, the lower the score, indicating a lack of knowledge on the part of the examinee. Presently the tab device is used in assessing the diagnostic skill of physicians.

The tab device can be adapted to a number of problem situations involving home economics content. A rather complete situation is given, including as many facts as possible, without revealing the answers. (See example following). Either individually or in small groups, students study the situation and select the tab which they believe will solve the problem. Information on the tab indicates whether the answer is appropriate. If it is not appropriate, a reason why is given. If immediate feedback is given, it can assist students in reevaluating their thinking and reinforce principles which have been previously learned.

### Example

Jim and Mary are buying an \$18,000 single family dwelling and find that they need an additional \$300 in two weeks for move-in costs that they had not anticipated. They feel that they must buy the home because they have already made an escrow payment of

\$500 and have the additional \$800 saved for the down payment. The house payment will be \$205 a month which is \$35 a month less than they are presently paying for their apartment and utilities. They are also making the following payments to Jim's credit union.

Automobile payments on a new Pinto of \$89 a month for the next 2 years.

Furniture payments of \$150 a month for another year.

A refrigerator payment of \$80 a month for five more months.

Jim is an automobile mechanic and makes \$700 a month take home pay. Mary earns \$450 a month as a ward clerk in a hospital but can continue to work only for six more months because she is over two months pregnant. Her hospitalization will stop then so they will have to pay \$40 a month for health insurance through Jim's job.

What should the couple do? Their expenses are so high they can scarcely save anything although they might be able to save the needed amount over a period of four months. *Pull the tab* that you think would be the best solution to the problem. If the first one you pull does not solve the problem, select another one.

1. Ask their parents for money on a loan basis.
2. Turn back unpaid for furniture.
3. Borrow money at the bank.
4. Borrow money at Jim's credit union.
5. Borrow money from a finance company.
6. Get a loan on Jim's \$2,000 life insurance policy which he has had for five years.
7. Seek a part-time second job which might pay \$40-\$50 a week.
8. Sell the Pinto and obtain an older car.
9. Ask one set of parents to co-sign a bank short-term loan.

## Answers

The answers are cut into strips to the numbers and folded in thirds then stapled to the right of the numbers.

1. Their folks wanted them to wait for another year before they married. Both sets of parents have other commitments so they can loan them only \$25 each or a total of \$50. Pull another tab.
2. They will still have to pay the balance between what the furniture cost and what the furniture could bring in a sale. Besides they would have to buy some used furniture to even live, and a furnished apartment would cost more in rent. Try again.
3. They have little collateral. So the bank will not loan the money without a co-signer. Pull another one.
4. Jim has already borrowed his limit at his credit

union for the car, refrigerator, and the furniture so he does not have enough collateral to borrow more. It was a good idea. Try again after the furniture and refrigerator loans are paid.

5. This is a poor choice for they must pay a high rate of interest (up to 18% in some states.) They will become deeper in debt with that choice. Try again.
6. Jim's life insurance does not allow too much of a loan because he has only had it for 2 years so its loan value is small. He can secure \$50 at 5½% interest. You need to pull another tab.
7. This one will work if he can find a job, but he cannot earn that much in two weeks. It will bring in \$80. Try again.
8. The depreciation lost on the car makes it a poor alternative but it is a way of raising about \$200. Try again.
9. This is the last resort because of the time element. Let's hope the parents sign.

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# ADAPTATION OF THE Q-SORT TECHNIQUE AS AN EVALUATION DEVICE

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Research techniques may be adapted so they become evaluation strategies and provide feedback to students. The Q-SORT TECHNIQUE is a useful tool to consider if a teacher wishes to have students decide what is important to them or to attempt to identify significant values for themselves. Some examples where the technique might be used are: an individual decides what characteristics he or she desires in a marriage partner; what elements are of concern to him or her in choosing housing; or what job factors are of consequence in selecting an occupation. The career emphasis will be illustrated in this article.

According to William Stephenson, as reported in Kerlinger<sup>1</sup>, the Q-SORT TECHNIQUE centers on the sorting of decks of cards called "Q sorts" into rank order piles. The deck has 60 to 120 cards to be ranked into a designated number of piles, usually from five to eleven. The participants are told the number of cards to put in each pile so as to make the participants selective in what they believe.

The beginning procedures of the technique may be employed and the statistical processes omitted for teaching purposes. The first step then is to develop with the students a list of phrases or words that apply to the situation being evaluated. As the list is developed, students write them on slips of paper or strips of light tagboard about 2" X 5" in size. Heavier paper or tagboard makes the cards easier to manipulate and they can be used over again. The advantage of students making the list in class is that each individual then understands the semantics of the phrase. The list of factors for selecting an occupation might be some of these:

1. Work with pre-schoolers
2. Interact with the elderly
3. Have only infants present
4. Function largely with teenagers
5. Deal with all age groups
6. Have beautiful surroundings
7. Be out-of-doors most of the time
8. Manipulate mathematical figures
9. Have regular paid vacations
10. Do a variety of tasks
11. Be specialized and do largely one type of task
12. Deal mostly with young adults
13. Complete work on the job without taking it home
14. Be own boss
15. Have a car furnished
16. Be involved in selling
17. Work alone most of the time
18. Travel regularly
19. Work with hands
20. Wear nice clothing
21. Earn a high salary
22. Have health insurance provided free or at low cost
23. Be indoors most of the time
24. Be kept up to-date by employer
25. Be around children 5-12 years old
26. Have job security
27. Be around people who are college-educated
28. Do mechanical things
29. Buy things at a discount

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<sup>1</sup>Fred N. Kerlinger, *Foundations of Behavioral Research* (New York: Holt, Rinehart and Winston, Inc., 1964), pp. 581-586.

30. Work with both sexes
31. Have meals furnished
32. Stay in own home community
33. Be able to advance
34. Live near home and not commute long distances
35. Be able to earn bonuses
36. Move to a new community
37. Have regular hours
38. Have housing furnished or available at low cost
39. Be able to be creative
40. Have a retirement plan
41. Work in a foreign country
42. Be proud of my job
43. Can talk about what I do to others, that is, no secrets
44. Be a member of a union which negotiates benefits
45. Learn new ideas on the job
46. Supervise others
47. Wear old clothes
48. Have a relatively safe job
49. Take coffee breaks
50. Have paid sick leave
51. Be able to stay clean
52. Have recreational facilities furnished
53. Be of service to others
54. Work with animals
55. Perform for others
56. Move frequently
57. Remain in a permanent location
58. Live in cold climate
59. Reside where seasons change
60. Live in a warm climate
61. Be able to be married
62. Have a lack of discrimination against minorities
63. Have a lack of discrimination against women.

After the list is completed, students are asked to sort the cards into three or five piles. If three, the first pile

might be, "Most Desirable to Me;" Of Little Concern to Me" might be the second pile; and the third pile might be "Undesirable to Me." Each student then makes a list of his or her choices so comparison can be made at a later time to see if ideas change. If the student keeps his own deck of cards, he can merely put each pile into separate envelopes or divide each sort with a rubber band. Then each individual is asked to select two or three occupations that interest him or her and investigate what the occupation entails. The class as a whole decides who will investigate which occupations, and members may volunteer to interview persons in a particular type of occupation. The information gained from reading career pamphlets and the interviews is shared with the total class.

Once all the career information has been presented, students are asked to take out the Q sort cards and see what job factors are present from the "most desirable" pile in the occupations they selected. Also what factors from the "undesirable" pile are present in the identified occupations. Each student might then decide whether or not he or she is willing to compromise his or her ideas about undesirable factors in order to actively pursue plans toward particular occupations.

As a follow-up to the activity, the educational requirements of each occupation studied can be identified. If post-secondary education is required, possibilities of part-time jobs to finance it could be explored. Financial and educational benefits of most work experience can be stressed.

If the Q sort is not used as a class activity, the list of phrases could be typed on cards and become part of a learning package so the student could pursue the ideas on his own. Employer interviews might be taped so they are available as needed. Whether the Q sort is used as an individual or group activity, it is important that students consider factors which are involved in a particular occupation. Students are likely to consider only the glamor factors and forget the reality that most occupations have both advantages and disadvantages. Teachers need to make it possible for students to evaluate themselves and assess their own decisions.

QQ

# WHAT DO I DO NOW?

## A Tab Device

Karen Robertson, Teacher  
Urbana High School  
Urbana, Illinois

- Objective:** The student will analyze this situation and select the course of action that is best after considering the probable consequences of each of the possible solutions given.
- Concept:** Personal wishes and family plans must sometimes be altered in order to fulfill the demands of one's job.

### Case situation

Nancy is a student learner training as a dietary aide at Greenview Manor Nursing Center. When she checks the work schedule for the next two weeks she is disappointed to find that she is scheduled to work from 3 to 7 p.m. on Tuesday, December 25.

For Nancy, Christmas involves a family gathering at either her grandparents' home, her own home, or her aunt's home in a city about 50 miles away. This year the plan is to go to her aunt's. Because her grandfather's eyesight is failing, the four members of her family plus her grandparents will be driving over early Christmas morning and returning late that afternoon.

Nancy regrets not having made arrangements ahead of time. Mrs. Sanders, her training sponsor, is willing to make changes if she is contacted before the schedule is posted. Nancy has arranged for last minute substitutes with Mrs. Sanders' permission before, but this time it is not just a weekend off—it's a holiday.

Nancy hates to spoil her family's plans and she doesn't want to miss the family gathering herself. *But*, she also has responsibilities to the residents here at the nursing center and to her fellow workers.

### Directions: Read all directions before starting.

Following is a list of some possible solutions Nancy is considering. After carefully considering each alternative *and* its consequences, decide on the *one* you think would be best.

Write down the number of the solution you pick and briefly explain why you think it is good. Now pull the tab of your choice. The answer will tell you if it's a good solution. If the solution is not a good one, reconsider and make another choice. You will be scored on the number of tabs you pull. If you need extra clues please ask the teacher for the additional information sheet. This counts as an extra pull.

### Additional Information

Nancy's problem is not an unusual one. At times personal wishes or family plans may conflict with what is expected of a person on the job. Most supervisors are willing to make an occasional adjustment in scheduling if the request is made well in advance. The problem for the supervisor is much more difficult when you remember there are as many "special requests" as there are employees to be scheduled. There comes a time when the supervisor must say, "I'm sorry, the operation of this department must come first. You'll have to make other arrangements because I'm counting on you to be here when you are scheduled."

Resentment and ill-feeling among employees result when the supervisor makes too many exceptions for any one employee. This same kind of resentment and ill-feeling which can reduce the amount and the quality of everyone's work can also be caused when an employee continually is looking for a substitute.



POSSIBLE SOLUTIONS	FACTORS TO CONSIDER
1. Call in sick before leaving for her aunt's home. Nancy has never done this so just this once it would be OK. She knows of other employees who have done this.	1. Lying is an unacceptable solution though it may seem to be the easiest. Because other people do it doesn't make it right for Nancy. Finding a substitute in that situation would be very difficult.
2. Ask her mother to call Mrs. Sanders and insist that she be re-scheduled. Mrs. Sanders could hardly refuse such a request.	2. Mrs. Sanders might very well refuse this "request". Her policy is not to make changes after the schedule is posted and Nancy knew that. In fact, she might even suggest that if Nancy can't do what is expected she isn't needed at all.
3. Explain the problem to the coordinator and ask her to talk to Mrs. Sanders about changing the schedule.	3. Nancy is trying to make someone else responsible for correcting her problem. Talking to her coordinator would help her in deciding how to deal with the situation at this point and in identifying what she may have done differently.
4. Ask her mother if plans can be changed and have everyone gather at their home. Take responsibility for calling her aunt and for helping with the extra work her mother will have.	4. Nancy fulfills her responsibility to her job but also is able to be a part of the family activities. She accepts the consequences of not asking for special scheduling ahead of time. Perhaps she'll remember this experience.
5. Ask her mother for permission to contact her aunt and make a change of plans. They would arrive Monday afternoon and leave shortly after noon on Christmas so Nancy would be able to get to work.	5. Having 6 overnight guests is quite a bit to expect of her aunt. The whole family is penalized because Nancy didn't make plans ahead of time. Then, too, a sudden snow storm could leave everyone stranded.
6. Find a substitute to work in her place.	6. Possibly—but finding someone would be very difficult. Nancy has done this a number of times already and making this a habit could easily weaken her relationship with fellow workers.
7. An acceptable solution if transportation can be arranged.	7. Nancy can go with the family and come back at 3:00 p.m.

My choice is number \_\_\_\_\_. I think so because:

# WHAT DOES AN EMPLOYER WANT?

Karen Robertson, Teacher  
Urbana High School  
Urbana, Illinois

- Objective:** The student will identify characteristics most desired in an employee by:  
-analyzing and ranking a given list of employee characteristics.  
-comparing his ranking with that of his training sponsor.
- Concept:** Knowledge of what an employer expects from an employee can facilitate improved working habits.

## Directions

Using the list below, put yourself in your employers position and try to imagine what characteristics are most desired in an employee. Put what you think is the most desired characteristic at the top of your list by ranking it "1" and the least desired characteristic at the bottom of your list as "14". Rank all others in between as 2, 3, 4, etc. in order of importance.

Within the next week ask your employer to rank the list and discuss with him his top choices. Then answer the questions at the bottom of the page.

Your Employer's Ranking	Your Own Ranking	
( )	( )	A. Works safely without endangering himself or others.
( )	( )	B. Does his job as directed without constant reminders.
( )	( )	C. Is open-minded and tries to see things from the supervisor's point of view.
( )	( )	D. Is neat, clean, and well-groomed when reporting for work.
( )	( )	E. Respects others and is cheerful and friendly.
( )	( )	F. Works willingly with other employees and sometimes does more than his share if required.
( )	( )	G. Sees extra work that needs to be done and does it.
( )	( )	H. Accepts positive criticism without feeling insulted.
( )	( )	I. Shows interest in learning and in doing his job well.
( )	( )	J. Is usually as positive and enthusiastic at the end of the shift as at the beginning.
( )	( )	K. Comes when he is scheduled or calls early enough so a substitute can be arranged when he is ill.
( )	( )	L. Is in good health so he "feels" like working.
( )	( )	M. Starts work on time and gives a day's work for a day's pay.
( )	( )	N. Is self-disciplined enough to control his temper, his words, and his actions.

## Questions

1. How did your top 4 choices compare with your training sponsor's top 4? (Identify by letter)
2. Why were these 4 of greatest importance to your training sponsor?
3. List by letter the characteristics you feel you need to improve.

# TO GO OR NOT TO GO—*THAT* IS THE QUESTION

**Karen Robertson, Teacher**

*Urbana High School*

*Urbana, Illinois*

**Objective:** The student will analyze the problem situation, make a decision, and explain his decision in terms of his own values.

**Concept:** The desire for peer approval may come into conflict with the desire to fulfill job responsibilities.

## Case situation

As Pam arrived at her training station, the Bonanza Steak House, she met three of her friends, Jeff, Allen, and Betty, members of the night crew, coming out of the employee entrance.

"Hey, where are you going? Aren't you scheduled for tonight?"

"No way!," replied Jeff. "If you think I'm going to work for that creep a minute longer you're out of your mind!"

"Right! Old Davis has blown his top for the last time. He's never going to get a chance to yell at me again," fumed Allen.

"Wait a minute, you haven't answered my question yet. What happened? Why are you leaving?"

"Well," explained Betty, "you might say we're going on strike. You know how Mr. Davis likes to act like a big shot when Mr. Evans is gone. Just because he's assistant manager Davis thinks he owns the place. Well, anyway, I was working in back getting salads ready and all of a sudden Mr. Davis started yelling at me because no one was at the cash register and there were customers waiting. I was so embarrassed, and that's when Jeff and Allen came in."

"We really told him off," added Jeff, "and he has had it coming for a long time! He's chewed me out several times. I'm glad I finally had guts enough to tell him what I think of him. It makes me mad that the other kids didn't have guts enough to back us up."

"Yeah, Jeff, you really find out who your friends are when the going gets rough. Well, come on, let's get going."

Pam turns and hesitates as the three start walking toward the parking lot.

"What's wrong, Pam, aren't you coming?" shouted Betty.

What *should* Pam do?

## Directions

Make your decision of what Pam should do using the chart below. Be prepared to discuss your decision with the rest of the class.

Factual Information Known	Further Facts Needed	Alternative Choices	Values Involved	Decision Made and Probable Consequences



# CHILD CARE OCCUPATIONS



Supervising preschool children in an art activity is one of the tasks assumed by the high school students.



Children learn how temperatures affect the way people dress.



Group planning is essential for the preschool. The students learn a lot about group dynamics.

Karen S. Morton, Coordinator  
*Child Care Occupations*  
Main Township High School West  
Des Plaines, Illinois

Students in Child Care Occupations at Maine West High School gain work experience through a school operated preschool program and in a local elementary school. The suggested course sequence is as follows: one semester of child development, one year of child care occupations in-school work experience (school operated program), and one year of child care occupations on-the-job supervised experience. Students are encouraged to begin the sequence as sophomores.

## *Weekly Schedules*

The entire child care occupations class (juniors and seniors) meets on Monday for the related class where they share and discuss their experiences at the preschool and elementary school, plan activities for the preschool, and work independently on assigned projects. Occasionally, guest speakers are invited to talk on specific topics and films are sometimes used. This is also the time when the teachers check on the individual progress of each student.

Tuesday through Friday, the students work in groups of five students. Two groups are with the preschoolers on Tuesday and Thursday while the other two groups are at the elementary school. On Wednesday and Friday the groups rotate responsibilities.

## *Child Care Occupations In-School Program*

Students plan all of the activities for the children under the supervision of the teacher-coordinator, and complete weekly evaluation sheets on both the elementary and the preschool training experiences. If important situations arise they are discussed by the class.

The experiences of the students working in the elementary school are varied. The majority of the students are placed in kindergarten, first, or second grade. Some work within special areas such as: hard of hearing, learning disabilities, and developmental grades. The high school students often tutor the elementary students in language arts, social science and math. Students also grade papers and make bulletin boards.

### *Workshop*

During the first three weeks of school, the students participate in a workshop covering many activities. They learn the fundamentals of operating a preschool, and experiment with science and craft projects. Upon completion of the first semester, the students then proceed to more complex projects.

### *Grading*

The students receive two credits for their work experience. One credit is the "on the job" training grade and the other is the related class grade. The training grade includes the evaluation of the student's work in the preschool and at the elementary grade school, plus all grades related to the laboratory experience.

### *Selection of High School Students*

Each year at the beginning of the second semester, school coordinators visit the homerooms to give a brief account of the school's cooperative education programs. All students receive an interest sheet, and those students indicating an interest in the Child Care program are sent an application. When the teacher-co-

ordinator receives these applications, an interview is conducted for the initial selection of students. Twenty students are selected for the program.

### *Preschool Selection and Operation*

The community learns of the preschool openings through an announcement in the local newspaper. The children are selected for their varied backgrounds. We attempt to make the group very heterogeneous.

The preschool operates for two semesters, four days per week, Tuesday through Friday, from 9:15 to 11:15 a.m. All regular school holidays are observed. Twelve children are selected each semester, thus enabling the high school students to be exposed to a variety of children. A nominal fee is charged to cover the cost of materials and supplies.

Evaluation has been continuous in the Child Care program, therefore, suggestions for improving the course are received frequently. The evaluations indicate that the high school students find the program very rewarding. The parents of the preschoolers are very complimentary also.



# A Bakery Simulation

Kathryn Eaton McCormick, Teacher  
*Tuscola High School*  
*Tuscola, Illinois*

In keeping with the current trends in career education in home economics, the foods classes at Tuscola High School were involved in a bakery simulation during six weeks of their foods course. The classes were divided into occupations represented in a bakery and rotated positions so that each student had experience in each job.

The bakery idea was selected for the simulation because:

1. The cost of ingredients used would be low.
2. The cooking skills required would be related to baking rather than all types of cooking.
3. Students seem to enjoy working with these kinds of products.
4. The products would be easy to prepare ahead of time for later sale.
5. The potential consumers of the products seemed to respond best to baked goods.

The overall objectives for the experience were:

1. To stimulate interest in home economics careers—specifically foods oriented—in the home economic students, and others in the community.
2. To teach specific skills related to
  - a. the world of work.
  - b. cake decorating and baking.
  - c. business management.

The bakery was a self-sustaining operation paying all the necessary bills. At the end of the project all profits were used to buy more equipment for the bakery.

## Suggestions for Developing A Simulated Bakery

1. What facilities and equipment is required.
  - a. Normal kitchen equipment is sufficient.
  - b. Expensive cake decorating items can be made with folded paper cones.
2. How to develop baking and decorating skills.
  - a. Contact local bakery for possible field trips.
  - b. Invite professional cake decorator to visit the class.
  - c. Have practice labs to perfect skills.
  - d. Plan for practice at home if possible.

3. How to identify what consumers will buy.
  - a. Survey to determine consumer preferences.
  - b. Have testing panels for product development.
4. How to let the student body and the community know about the sale.
  - a. Develop flow sheet before each sale to identify specials.
  - b. Make posters and explanation sheets of the overall project and its career related goals; distribute these throughout the community and in the school.
  - c. Prepare a news release for school paper and community papers.
5. How to acquire beginning capital for the business.
  - a. Begin on credit.
  - b. Have the students apply for a loan (e.g. from the school).
  - c. Sell shares in the business to the students involved in the project.
6. How to divide the work roles for the project.
  - a. Through group discussion and study of how businesses are run, determine what needs to be done.
  - b. Have students apply for different jobs based on their interests and qualifications.
  - c. The following are suggested job roles:

### *Manager—Advertising—Sales*

1. Decide on the theme to be used for the sale.
2. Make decorations.
3. Assign all other specific jobs.
4. Direct appropriate advertising.
5. Order all necessary ingredients.
6. Arrange food attractively on tables for sale.
7. Be responsible for sales, cleanup, and storage.

### *Bookkeeping—Accounting*

1. Responsible for determining and setting a price for products.
2. Make a poster listing products and prices for the public.
3. Takes money and counts it and turns it in to the office.
4. Reports to the class no later than two school days after the sale:
  - (a) cost of the sale.



- (b) gross income.
- (c) profit or losses incurred.
- (d) which items sold well; which did not.
- (e) recommendations for further sales based on these results.

#### *Bakers*

1. Responsible for following the theme for the sale and finding appropriate recipes.
2. Prepare standard products and divide foods into suggested portions for sale.
3. Follow strict sanitary procedures.
4. Types of Baker groups:
  - (a) cake-cupcake.
  - (b) candy-cookie.
  - (c) breads.

Each baker group designates a head baker.

7. What kind of forms need to be developed to facilitate the project?
  - a. Try to simulate forms used in business as closely as possible.
8. How can this type of activity be evaluated?
  - a. Have students make self evaluations of their jobs for each sale based on the job role description.
  - b. The instructor could decide that:
    1. Each group will receive a group grade for their time as.
      - (a) manager.
      - (b) bookkeeper-accountant.
    2. Each person will receive a grade for the product that they personally decorate.
    3. Each person will receive a quiz grade for each product that they make as bakers at each sale (each person in the baker's group will be required to prepare at least one product).



Students learn the art of cake decorating and develop wage earning skills.



Student bakers learn techniques for preparing marketable products.



4. At the end of the simulation there will be a written exam on information which should have been acquired through demonstration and practical experience.  
There will be a lab practical exam in which students will be required to exhibit skills in lab for an exam grade.



9. What reference material would be useful?
  - a. "Celebrate Magazine," Chicago, Illinois: Wilton Enterprises, Inc., 1973-1974.
  - b. DeUnda, Elizabeth and Edith Latimer. *Atero Simplified Cake Decorating*. Woodside, New York: August Thomsen Corp., 1960.
  - c. Fehlmann, Hazel Ann and Mary Wilson Morgan. *Fun With Icing*. 1971.
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### Benefits of the Project

1. The individual students have greater responsibility than in a regular foods lab.
2. A team feeling develops and fosters positive student behavior.
3. Students become very involved in completing their jobs well because they take pride in their own accomplishments and the group effort.
4. The student body and community become more aware of home economics.
5. The students learn through experience how their skills, knowledge, and labor affect the success of the sale.

### Overall View

Projects such as this are invaluable because of the many different kinds of learning experiences which can be developed. Each teacher, depending on her particular goals, could use this format for as short or as long a period as necessary. More importantly however, is the way this type of activity helps to promote positive student and community attitudes toward home economics career education.

Students have the satisfaction of knowing that their venture into the business world is successful as a customer purchases some products.



# EVALUATION FORM

## Manager - Accountant - Decorator - Product Baker

DECORATED PRODUCT	STUDENT	TEACHER
<ol style="list-style-type: none"> <li>1. Appearance</li> <li>2. Originality</li> <li>3. Chose a design related to ability</li> <li>4. Any Other Comments</li> </ol>		
<b>MANAGER</b>		
<ol style="list-style-type: none"> <li>1. Showed the ability to take responsibility</li> <li>2. Originality of ideas</li> <li>3. Leadership abilities</li> <li>4. Followed through all responsibilities in the job description</li> <li>5. Any Other Comments</li> </ol>		
<b>ACCOUNTANT</b>		
<ol style="list-style-type: none"> <li>1. Evaluated cost and sales correctly</li> <li>2. Gave a prompt informative report</li> <li>3. Had poster ready for the sale</li> <li>4. Carried out any other duties as assigned by the job description</li> </ol>		
<b>BAKER</b>		
<ol style="list-style-type: none"> <li>1. Prepared a standard product</li> <li>2. Followed directions and cooperated</li> <li>3. Had product completed on time</li> <li>4. Any Other Comments</li> </ol>		



## RECIPE EVALUATION FORM

Attach Copy of the  
Recipe

BAKER \_\_\_\_\_

RECIPE \_\_\_\_\_

INGREDIENTS

AMOUNT

COST

MANAGER

## BAKERY SALE WORK ASSIGNMENT FORM

EMPLOYER

ASSIGNMENT

DUE DATE

EVALUATION

Total Cost To Make \_\_\_\_\_

Number Of Units For Sale \_\_\_\_\_

Selling Price Per Unit \_\_\_\_\_

Possible Sale Total \_\_\_\_\_

Actual Sale Total \_\_\_\_\_

~

## EVALUATION OF PRODUCT AFTER SALE

1. Was there any of the product left after the sale?

If so, how much?

What was the loss incurred?

2. Why do you feel that the product did not sell? Or did sell?

3. What recommendations do you have?



# MAXIMIZING THE BENEFITS OF RESOURCE PEOPLE AND CAREER VISITS

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Interviews with workers and visits to work sites can provide students with "first hand" opportunities to interact with people and to make observations, if they are well planned. Involving students in these experiences can spark the students' interests, broaden their knowledge, and challenge them to seek out additional information. In planning for these experiences, teachers may want to consider the following questions:

1. What objectives do I want to accomplish and how?
2. What arrangements have to be made at school?
3. What do I want the students to observe?
4. What arrangements have to be made with the agency or resource persons?
5. How can I prepare the students for the experience?
6. What will the students observe and learn?

Whether the students are challenged by their observations and interviews is dependent in part on the teacher's pre-and post-planning with the students and the resource persons. Having resource people in the classroom or leaving the classroom to make observations are not new techniques. However, the way in which the teacher prepares the students for these experiences may be new, especially if the focus is on the people and their work rather than on equipment and products.

The interview format can allow for more student-resource person interaction. Prior to the resource person's visit, the students can work individually or in small groups to develop questions to ask the visitor. Encouraging the students to formulate questions which focus not only on the job, but on the person doing the job, will help them better to understand the person being observed.

After the students' questions have been organized, the teacher may give a question list to the resource person a day or two before the scheduled interview.

If interviewing is a new technique, the students may "practice" by interviewing another teacher or counselor in the school or each other. Taking on the roles of interviewer and interviewee through "role play" is another means of helping the students develop interviewing skills. Watching TV "talk shows" in which the interview technique is used may also be helpful, or the teacher could demonstrate the technique in class.

The questions may be divided so that each student has one or two questions to ask. After the resource person gives a brief introduction about his/her work, the interviewing may begin. The answers to the questions are likely to prompt additional questions.

Examples of questions students may ask in interviews:

1. Why did you decide to do this work?
2. What new skills have you had to learn since starting this work?
3. What do you like about this work?
4. What don't you like about this work?
5. What inventions have changed your work?
6. What inventions could eliminate your job?
7. What skills or abilities are important for your work?
8. What do you do during your leisure time?
9. What are your hobbies or special interests?
10. Do you have to move often?
11. How does your family feel about moving?
12. Are you tired when you get home?
13. Are you subjected to much noise during the day?
14. Do you have to work at night?
15. What kind of clothes (uniform) do you have to wear when working?
16. What kind of equipment or tools do you use?
17. When do you feel good or satisfied with your work?



18. When do you feel upset about your work?
19. What special preparation is required for your work?
20. What do you do on the job?
21. What subject related skills (math, science, reading) are important for your work?
22. Was this your first job choice?
23. How many times did you change your mind about what you wanted to be before you went to work? Why?
24. Who depends upon your work?
25. Whom do you depend upon for your work?
26. What experiences and training on this job might prepare you for some other kinds of work, if you wanted to change jobs?
27. What personal qualities are required for your job?
28. When are you complimented by your employer or when do you compliment your employees?
29. What are some reasons for firing people?

The preceding questions are very general. Students will probably ask some more specific questions also. For example, a class of 8th graders developed the following questions for an interior designer, TV sales and service owner, and TV traffic manager.

1. Interior Designer
  - a. What do you do when people are unhappy with your choices?
  - b. How do you get your interior decorating jobs?
  - c. What subject related skills are needed?
  - d. How do you keep up with the latest fabrics, styles, and colors?
2. TV Sales and Services Owner
  - a. What do you need to start a business like yours?
  - b. What are the advantages of being your own boss?
  - c. What do you look for in people you hire?
3. TV Traffic Manager
  - a. Do you use cue cards?
  - b. Are your television announcements taped or live?
  - c. How were you chosen to do television commercials?

After the interviewing session, the teacher and students should express their appreciation to the resource persons. The following day a letter may be sent to the resource person and his/her employer. A discussion focusing on the resource person's remarks will help students verbalize what they learned and may prompt additional study.

Visits with persons in various careers may be taken

to provide students with additional opportunities to observe and interview workers on the job. In order for these visits to be interesting and beneficial, students, tour guides and workers need to be prepared for the visits.

When making arrangements with the career visit guides, explain to them your interest in the workers on the job rather than equipment and products. Providing the career visit guides with a copy of the student observation sheet will help them to understand your objectives. Arranging for the class to be divided into small groups for the tour makes it easier for students to see, hear, and ask questions. If picture taking is permitted, one or two students may be encouraged to take pictures. These pictures will add interest to the student reports.

Students can prepare for the visit in a number of ways. A discussion with the students about the purposes of the visit and special points for observation will help make the visit more meaningful. The following "Are You a Keen Observer?" checklist will help the students focus on the worker and consider the question, "Would I like that job?" This checklist will also help the students to formulate questions to ask the guide and workers.

### ARE YOU A KEEN OBSERVER?

WHAT: Career Visit

WHY: Observation of persons in the "world of workers."

Some suggested observations to make while on the field trip:

### DO THE WORKERS IN THIS JOB

- look like they are enjoying their job?
- need educational training? how much?
- have an opportunity for a job in the career ten years from now?
- usually *sit* at a desk or table?
- stand* still or move around?
- have a high level of noise in their work area?
- have regular 8 a.m. to 5 p.m. hours of work?
- have irregular working hours? (swing shift)
- consider their work dangerous?
- wear special uniforms or other special clothing?
- have to be men? women?
- need special abilities or talents?
- have specific tasks to be performed?
- have to take special examinations (State Board Exams, health, etc.)?
- have opportunities for advancement, promotions?
- have to move often?
- like to move?
- feel excessively tired when they get home from work?

- use special tools or equipment in their work?
- need subject-related skills (math, science, reading, etc.)?
- depend upon other workers?
- have other workers depending upon them?
- get dirty while doing their work?
- appear polite and pleasant?
- belong to a union?
- work with people?
- work with machines and tools?
- have any physical restrictions (age, height, weight, build, etc.)?
- work overtime or have a "busy season"?
- always have to be in a constant rush?
- have routine work or is it frequently changing?
- work independently or under close supervision?

Try to think of additional points to consider when observing workers and think about whether *you would like to be a worker in this job*.

Providing students with posters or pictures of the site to be visited can spark interest. A picture of the site and a listing of the departments or areas to be

visited can help provide stimulation for the students to brainstorm about the kinds of workers they might observe. A class of eighth graders, who were studying careers in health related occupations, made a list of 25 workers whom they thought they would see working in a hospital. After the visit they added 27 more workers to their list.

After the visit the students can share their observations, show pictures, and ask questions about the workers they saw. If the class was divided into two or more groups, this sharing time is especially interesting, because they have observed different workers. Thank you notes expressing the appreciation of the class to persons at the site, who assisted with the visit may be written by the students. Student written news releases checked by the teacher help inform the community about the purposes of career visits and what was observed.

The following form for evaluating a visit could be helpful to the teacher when assessing the value of the visit and planning future visits.



To (name of student)

I'm glad you went on the career visit! Was the visit worthwhile? How can I make it better? What did you observe? Please share your comments.

1. Did you enjoy the visit to (name of site visited?)  
Yes\_\_\_\_\_ No \_\_\_\_\_  
Why?
2. Do you think it was worth your time to go?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Why?
3. If you could go back for a day, which person  
would you like to be with and assist?  
\_\_\_\_\_  
Why?

4. Do you have any new occupational interests as  
a result of your visit? Yes\_\_\_\_\_ No \_\_\_\_\_  
If yes, what are they?
5. Which people looked like they were enjoying  
their jobs?
6. During our visit we saw people involved in many  
many different occupations. List some of these  
occupations and the duties of a person in this  
occupation.

Occupation	Duties
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____

7. If we could go again, what should we do to improve the visit?

8. Please describe any parts of the visit that you did not understand.

9. Are you interested in a (area studied) related career? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, which one? \_\_\_\_\_

In order for the career visits and interviewing to be most effective, the teacher must do adequate planning at three stages:

1. Preparing students and resource persons.
2. Participating in the planned activity.
3. Following up with shared observations, questions, and further study.

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## HOME ECONOMICS CAREER EXPLORATION PACKAGES

Exemplary programs in career education introduced an educational framework which indicated a need for analyzing and evaluating traditional procedures used in home economics classrooms. The analysis and evaluation identified the necessity for designing and implementing new curricula, instructional materials, media, methods and techniques. These components of the instructional program are intended to aid students in making decisions, being creative, accepting responsibility, relating classroom experiences to the world of work, and satisfactorily coping with social and economic conditions.

The following systems approach was used to plan, develop, and implement a program which combines home economics related career exploration with knowledge and skill development.

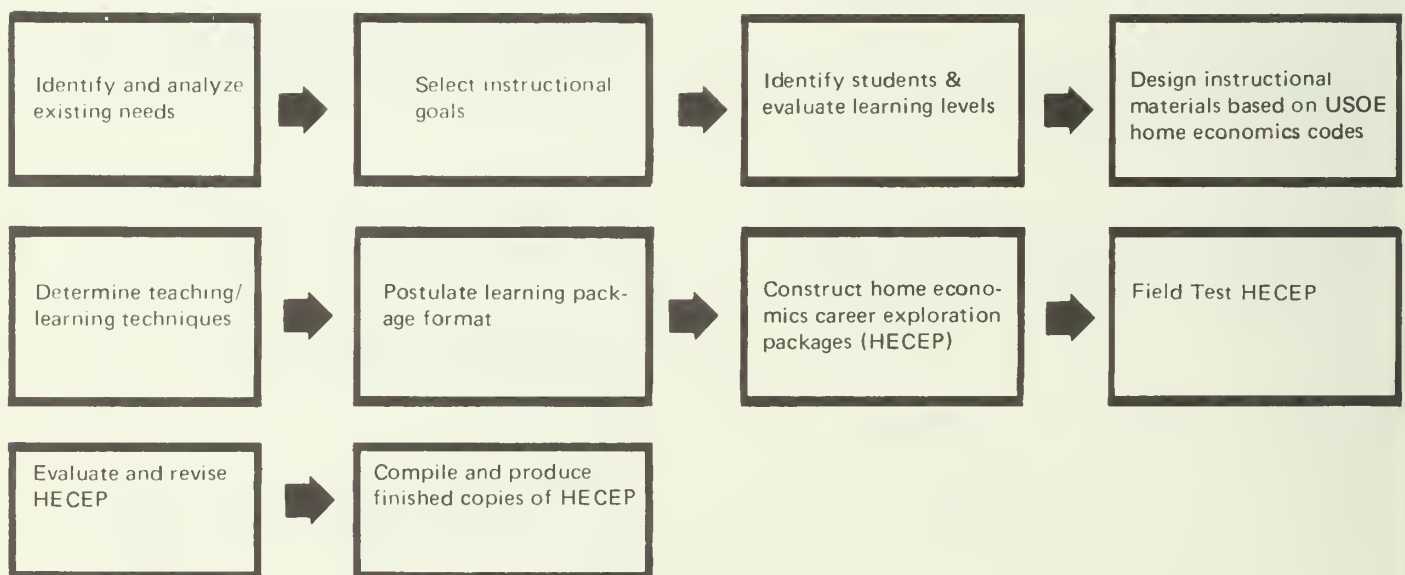
The following needs were identified:

To plan a long range educational process by articulating the exploration of home economics related careers in grades 7, 8 and 9 with skill development in grades 10-12.

To utilize the exploration of home economics related occupations as an interest approach and an orientation to occupational programs in vocational home economics.

To plan "hands-on" learning experiences in simulated situations that will suggest realistic applications to the world of work.

To create a learning environment that will motivate students of different learning levels to participate in exploration and/or depth study in



areas of occupational or career interests.

The following educational goals were selected:

The student will become acquainted with the major characteristics and worker skills required for successful employment in occupations related to home economics.

The student will participate in "hands-on" experiences and/or "on-sight" experiences that will help him explore and identify interests and abilities in occupations related to home economics.

The student will gain information and develop some skill in at least one of the occupational areas identified by the U. S. Office of Education as areas in which home economics personnel have the knowledge and skills to prepare students for employment.

The student and teacher will assess knowledge and skill gained by the student after exploring interests, aptitudes, and job opportunities in occupations related to home economics.

After identifying needs, selecting instructional goals, identifying students and evaluating learning levels, the decision was made to design exploratory type learning packages suitable for 7th and 8th grade learners. The next decision to be made was of great importance. Upon what basis do we propose to structure a sequence of learning packages? The most feasible answer was to use as a basis the five broad U.S.O.E. occupational codes: Clothing Production, Management, and Services; Care and Guidance of Children; Foods Production, Management, and Services; Institutional and Home Management and Supporting Services; and Home Furnishings, Equipment, and Services. Other major issues consisted of: (1) choosing one concept from each broad area around which an appropriate and appealing learning package may be developed, and (2) choosing a title for each package.

Hundreds of exploratory learning packages could be developed from the broad areas of Clothing Management, Production, and Services; Care and Guidance of Children; Food Management, Production, and Services; Institutional and Home Management and Supporting Services; and Home Furnishings, Equip-

ment and Services. One concept was chosen from each of the above areas and was developed into an exploratory learning package.<sup>1</sup> Two separate sections, the teacher section and the student section, were developed according to the UNIPAC format. Since numerous commonalities exist between Clothing Production, Management, and Services and Home Furnishings, Equipment, and Services the decision was made to combine the exploration of these two areas. The combination package was developed on the concept of operating the sewing machine. An example of an attempt to motivate the student to explore the concept is found in the introduction and in the learning objectives of the *Gift Boutique, Student Edition*.<sup>2</sup>

## THE GIFT BOUTIQUE

### *Introduction*

There comes a time in your life when you want a little privacy. You need to be alone with your thoughts, problems, tears, laughter, and any other mood that appears. A little miracle called "planning and organization" can help you attain and enjoy your own special hideaway. Furniture + Accessories + know-how = your own private corner. There is one other ingredient that is a must if your hideaway is to be complete. The ingredient is *you*. Your personality will be reflected in your choice of colors, wall hangings, windows treatments, and other furnishings that are in your domain. Your personality will also be reflected in the clothes you wear, the gifts you choose or make for friends, and the attitude and manners you display to others.

Understanding and skills are needed if you reflect an image that will be satisfying to you. Sewing is an easy, satisfying way to let your creativity show. Many teenagers today are learning to sew. When a sewing project enters your world, make it feel welcome by giving it your attention. Learn the skills necessary to do a top job. You may discover a talent that has been dormant until now. But don't stop here—you've only just begun to get a good thing going.

### *Learning Objectives*

After you complete this learning package you will have a better understanding of the information and of the sewing skills necessary to construct clothing or room accessories. You may discover an interest in

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<sup>1</sup>These learning packages described in this article were field tested in three junior high schools in Jones County, Mississippi and in one junior high school in Bay Springs, Mississippi. They are available for purchase from the R/CU, Drawer DX, Mississippi State, MS 39762.

<sup>2</sup>Louie E. Kemp, *Gift Boutique, Student Edition* (Mississippi State, Mississippi: Research and Curriculum Unit for Vocational and Technical Education, 1972), p. 1.

clothing or home furnishings that will lead you to a future career after you successfully accomplish the following objectives:

- A. You will identify the parts of a sewing machine by locating and by orally stating the names of the parts of the sewing machine to the teacher.
- B. You will properly insert a needle in the sewing machine, and you will stitch, following the lines on notebook paper.
- C. You will thread the sewing machine, thread the bobbin, place the bobbin in the bobbin case, thread the bobbin case, and sew a 5/8" seam.
- D. You will construct a simple article that you might find in a gift or novelty shop.

In the *Gift Boutique, Teacher Edition*<sup>3</sup> the following examples of "Instructions to the Teacher," "Suggested Instructional Procedure," and one instruction sheet are typical of the concentrate effort to simplify the use and care of the packages.

#### INSTRUCTIONS TO THE TEACHER

##### Instructional Approach

The student section of this exploratory learning package will use the quasi-discovery approach, which means that there will be factual information given to the students, but there will also be provisions made for students to explore and discover information. By presenting educational materials and suggested learning experiences that are directly related to the instructional objectives and criteria for evaluation, the student will hopefully gain some understanding of the duties, responsibilities and tasks performed by workers in clothing related occupations.

##### Identification of Learners

This learning package is designed for average seventh and eighth grade students who are exploring careers related to home economics.

##### Special Instructions

- A. Equipment Needed
  - Sewing Machines
  - Overhead Projector
  - Tape Player
  - Scissors
  - Stapler

##### B. Books Needed

Barclay, Marion S., and Champion Frances. *Teen Guide to Homemaking*. New York: Webster Division, McGraw-Hill Book Company, 1967.

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##### C. Instruction Sheets Needed

1. Fringed napkin or place mat
2. Fish potholder (including pattern)
3. Christmas tree wallhanging (including pattern)
4. Terry cloth pillow
5. Clothesline coat hanger
6. Wig rack
7. Belt coat hanger
8. Tie-dye tank top

##### D. Media Needed

1. *Transparency Masters*

The following transparency masters are included in this package:

- a. *Sewing Machine Head*
- b. *Threading the Sewing Machine*

2. *Tapes*

For those students who prefer or who will profit from learning by listening, it is suggested that the key readings in each lesson be made available on tape. These key readings will include textbook references listed in learning experiences in the student package.

##### Instructions for Evaluations

Three instruments for evaluation have been included in this package. These are the pretest, the sewing machine license, and the post-test. The sewing machine license will serve as a self-test, since each student will become aware of his knowledge of the sewing machine and his skill in the use of the sewing machine. The post-test should indicate the extent to

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<sup>3</sup>Louie E. Kemp, *Gift Boutique, Teacher Edition* (Mississippi State, Mississippi: Research and Curriculum Unit for Vocational and Technical Education, 1973), pp. 1-6, 16.



which behavioral changes have taken place as a result of participation in learning experiences since the pretest was given.

### Suggested Instructional Procedure

Explain the use and care of the student section of the learning packages. The following explanations to students are suggested:

1. Read the introduction and the instructional objectives. This information will identify the occupation that the student will explore and will explain the extent to which they are expected to explore the occupation.
2. Explain to the students that the pretest will be administered to help them assess their knowledge of clothing and home furnishings occupations. Give a copy of the pretest to each student. Remind the students that they will not write on the sample pretest in the learning package and that they will not receive grades on the pretest.
3. Following the pretest, the students will begin Lesson One. The component and the objectives explain what they will learn. The instructions direct them to the learning experiences and explain the number of learning experiences they must successfully complete before attempting Lesson Two.
4. Follow the same procedure throughout the remaining lessons.
5. When the students have completed their last lesson and feel that they are ready, they should ask the teacher for the posttest or final test. A grade should be given on the posttest. This will mean that the students have completed their exploration of this occupation.
6. If they need equipment, media, or materials; if they do not understand a direction given; or if they need help in any activity they are undertaking, they should ask the teacher for help. She will be glad to assist them.
7. The students will not write their names or anything else in the learning packages. These will be used by students in other classes this year and in years to come. All written assignment sheets will be given to them.

Show and explain to the students the location and the method of filing the learning packages.

1. Each learning package will be kept in a manila folder. Each folder will have the name of the learning package written on it.
2. The folders containing the learning packages will be kept in a file drawer or a box on a table beside the teacher's desk.

3. When students come to class, they should each get a manila folder that contains a learning package in which they are working. This folder will be taken from the file drawer or box. At the end of the period, they will replace the folder and the learning package in the same file drawer or box. The learning packages will not be taken out of the classroom.

Introduce the subject matter area that the learning package is designed to explore. The following is a suggested approach.

Explain to the students that this learning package will help them find out more about the occupations in Clothing Production, Management and Services. They may become interested enough in these occupations to want to know the training necessary in order to qualify for these occupations. They may decide that this is not exactly "their cup of tea," but they may wonder if there is another occupation similar to this that would appeal to them. Build an interest approach that will cause the students to become enthusiastic about the occupation. An attractive bulletin board, a film, or a resource person may be valuable aids.

Identify the equipment, materials, and media that will be needed by the students, and point out the locations of these available supplies. Students should ask to use the supplies and request assistance if needed.

Instruct the students *not* to write *on* or *in* the package. Tests or any other written assignment sheets should be made available to the students upon request. An adequate supply of work sheets should be available when students begin the package.

### Instruction Sheet 7

#### *Belt Coat Hanger*

#### Equipment Needed

Sewing machine, wire coat hanger, scissors, ruler or tape measure, pins, eyelets, and "S" hooks.

#### Materials Needed

Fabric, thread, felt (16" long and 3" wide).

#### Directions

1. Cut a piece of felt 16" long and 3" wide; fold in half lengthwise over the bottom of a wire coat hanger. Pin.
2. Place the coat hanger, with the hook to the left, under the sewing machine. Stitch the length of the coat hanger,  $\frac{1}{2}$ " from the cut edge of the felt.
3. Fasten five metal eyelets, evenly spaced, across the length of the coat hanger through the double felt.

4. Place an "S" hook in each eyelet.

Example of learning experiences included in the *Culinary Cubs, Student Edition*<sup>4</sup> are shown below.

### Lesson I

#### Component:

Setting Attractive, Useful Trays

#### Objective:

As a result of the following experiences you will be able to: Properly set up a tray by preparing and arranging silverware, napkins, serving dishes, and glassware that will meet the needs of a patient in a hospital or nursing home.

#### Instructions:

You must complete Learning Experience 1 or 2, and Learning Experiences 3 and 4.

#### Learning Experiences:

1. Read *Tray—Your Personality Is Showing*
2. Listen to tape *Tray—Your Personality Is Showing*
3. The tray card should contain the following information:
  - a. Patient's name
  - b. Patient's room number
  - c. Type of diet

Sylvia Boyd is in room 620 and she is on a special diet. Make a card for her tray that will include all of the necessary information. Ask your teacher for the materials to work with when making the tray card. Write your name on the back of the card and put the card on the teacher's desk. She will evaluate it and return it to you.

Extended learning—Set up a tray that may be appealing to a four-year old child, Jane Jones, who is a patient in Children's Hospital. Jane has a broken leg and is on a regular diet. Do your own thing!

The following is an example of a lesson which includes an introduction, a component, an objective and selected learning experiences. These are from the *Polka Dots, Student Edition*<sup>5</sup>.

### Lesson II

Do you feel "on top of the world" today? This

feeling may be telling you that your temperature is normal; your physical condition is great! Have you ever felt "washed-out," "faded," "out of it"? Possibly your temperature was below normal. How can you find out whether your temperature is normal? Why is it important that you know if your temperature is normal?

#### Component:

The function, use, and care of thermometers

#### Objective:

Given two clinical thermometers, you will identify each thermometer, demonstrate the proper use, explain the function, and demonstrate the proper care of the oral thermometer.

#### Instructions:

You will perform Learning Experience 1 or 2; then you must complete Learning Experiences 3 and 4.

#### Learning Experiences:

1. Read pp. 186-191, *American Red Cross Home Nursing Textbook*.
2. Listen to tape, *Care and Use of the Clinical Thermometer*. Get the tape from the teacher's desk.
3. Ask your teacher for the thermometer kit. Explore the kit and identify the oral clinical thermometer. Write a description of the appearance of the thermometer. Which shape thermometer can be used for all purposes?
4. Role play. Choose a classmate to be a patient. Demonstrate to your group the proper procedure to use when taking a patient's temperature, when reading a thermometer, and when cleaning and storing the thermometer.

The *Mini Nursery*<sup>6</sup> learning package explores baby sitting, which is an occupation related to child care. The teacher edition contains scripts for tapes, instruction sheets, and information similar to the example illustrated from the *Gift Boutique*. Each student edition contains a pretest and posttest. The keys to the test are found in the teacher edition.

The following is the *Mini Nursery* pretest.

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<sup>4</sup>Louie E. Kemp, *Culinary Cubs, Student Edition* (Mississippi State, Mississippi: Research and Curriculum Unit for Vocational and Technical Education, 1972), pp. 4-7.

<sup>5</sup>Louie E. Kemp, *Polka Dots, Student Edition* (Mississippi State, Mississippi: Research and Curriculum Unit for Vocational and Technical Education, 1972), pp. 6-7.

<sup>6</sup>Louie E. Kemp, *Mini Nursery, Teacher Edition* (Mississippi State, Mississippi: Research and Curriculum Unit for Vocational and Technical Education, 1972), p. 7.

## PRETEST

Directions: Write agree or disagree in the blank before the number.

- \_\_\_ 1. A baby-sitter should interview the parents before sitting with a child.
- \_\_\_ 2. A baby-sitter's parents should know where the baby-sitter will be working.
- \_\_\_ 3. A written list of instructions for the baby-sitter from the parents is needed.
- \_\_\_ 4. A baby-sitter should learn where the light switches are before the parents leave the house.
- \_\_\_ 5. If a child will not cooperate, the baby-sitter should threaten or frighten him.
- \_\_\_ 6. The salary of a baby-sitter should be settled before the baby-sitter takes the job.
- \_\_\_ 7. A baby-sitter should entertain herself on the telephone while she baby-sits.
- \_\_\_ 8. A baby-sitter should know where the parents can be reached by phone.
- \_\_\_ 9. The telephone number of the family doctor should be left with the baby-sitter.
- \_\_\_ 10. A baby-sitter should have her boyfriend visit her often when she baby-sits.
- \_\_\_ 11. A baby-sitter should not prepare any food for children.
- \_\_\_ 12. If a baby-sitting engagement should have to be broken, the employer should be notified immediately.
- \_\_\_ 13. A baby-sitter should not "tell the family secrets" after she leaves the job.
- \_\_\_ 14. Safety of children should come first with baby-sitters.

- \_\_\_ 15. Snacks may be prepared by baby-sitters, with the permission of the parents of the children.
- \_\_\_ 16. Children should not be allowed to watch television with a baby-sitter.
- \_\_\_ 17. When reading to a group of children, the children should be seated in a semicircle.
- \_\_\_ 18. Skates are play materials to be used in active play.
- \_\_\_ 19. Children learn by playing.
- \_\_\_ 20. Play dough and finger paint must be bought.

The branched type packages recommend and direct the student to varied uses of multi-media materials and equipment. These packages may be used as a technique of programmed learning which allows the teacher to manage the learner in a learning environment. The teacher/manager has more time to work with the individual learners who are learning at different learning levels. The learning experiences in some of the packages may be satisfactorily completed by some students in one week; other students may spend one month completing the learning experiences. The format and the content encourage flexibility of use. Teachers are encouraged to add concepts and learning experiences to meet the needs of individual students.

The portions of the packages are included to give evidence of the intended level of the learner, to state some of the content to be learned through participation in "hands-on" experiences, and to stimulate teachers to develop similar learning packages to broaden the exploration of careers related to home economics.





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# PREPARING FOR THE FUTURE

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The short stories in this series were designed to provide some basic information about occupations that require some knowledge and skills in child care, clothing, food service, housing and home furnishing, home management and family economics, and nursing.

Their instructional intent is to:

1. Inform student of some home economics related career opportunities.
2. Define certain terms related to career education.
3. Encourage students to consider factors that influence one's choice of careers.

## Child Care Story

### Objectives:

1. To inform students about career opportunities in child care occupations.
2. To acquaint students with career ladders and to show what is needed to move up the career ladder.
3. To inform students of the qualifications needed to be a child care aide and what the duties of the job are.
4. To encourage students to prepare for future jobs and show how this may be done.

### Uses:

This story could be used in an occupation orientation unit or a child development unit. The students could role play a nursery school situation following the story to show the types of things children need to learn and also to show the role of a child care aide. These questions could be asked:

1. What kind of occupations related to child care are available in your community?
2. What tasks do the people in these occupations perform?
3. How much education and work experience are required for people entering these occupations?
4. What is a career ladder?
5. How can one move up the career ladder?
6. How can one prepare for a job in child care while in school?
7. How can one find out about careers in child care?
8. What factors would influence a person to choose a career in child care?

## A Career in Child Care

Joyce and Becky were talking. Joyce was very excited. She was telling Becky about her new job. "Becky, you know how much I like working with children," Joyce started out. "Well, I got a job at the Child Day Care Center."

"Oh, good!" Becky said. "You sound as if you

really like it. How did you get the job?"

"It's a long story," Joyce replied. "Can you stay for lunch?" Becky nodded. "Good," said Joyce, "I will tell you all about it."

This was Saturday. Joyce's mother was shopping. So Joyce was babysitting with her five year old broth-

er, Mark. She checked to see where he was playing. Then she and Becky started getting lunch.

"You see," Joyce began, "I have always liked being with children. Around here I babysit alot, too. But I didn't know until a little while ago there were other kinds of jobs working with children."

"Well, how did you find out?" Becky asked.

"The home economics teacher told me. She said there are many occupations in child development. They are divided into five areas. See here, I wrote them down," Joyce said. She took the list out of her purse and handed it to Becky. "They are in child care centers, day schools for handicapped children, recreation centers, private education, and children's institutions."

"Do you mean there are jobs in all of these places?" Becky asked.

"That's right," Joyce answered. "There are several jobs in each one."

"What kind of jobs?" Becky questioned.

"Like jobs for child care aides or teachers. Play ground assistants and leaders. Or housemother. Or counselors. And of course, there are jobs for directors in all these areas." Joyce was trying to remember all the jobs her teacher had told her. "And there are many more," she finally added.

"Wow! That's alot. How would you decide what you want to do?" asked Becky.

"It would depend on several things," Joyce continued. "First I would decide what I am most interested in. Of course, it will depend on what jobs are available."

"And what you are qualified for?" Becky added.

"Right," Joyce replied. "Some jobs you can get right out of high school. Others you may need some child development courses or experience. And some require a college education. But you can usually work up the career ladder."

"What is a 'career ladder'?" Becky asked. She had never heard of that.

Before Joyce could answer there came shouts from the next room. "Joyce, Becky, come and see the tower I made," Mark called. "It's really big. Come, quick."

Joyce and Becky rushed in to see Mark's tower of blocks. "That's really nice, Mark," Becky said. And Joyce gave him a big hug.

Back in the kitchen Joyce answered Becky's question about career ladders. "They are kind of like Mark's tower," she explained. "The home economics teacher said career ladder just means you can move from one job to another. Like the way you would climb the rung of a real ladder. You may need some experience or some special training though," Joyce added.

"What jobs are on the career ladder in child care centers?" Becky was curious. "What kinds of jobs could you move up to?"

"Right now I am a day care aide," Joyce began. "With some experience and more courses in child development I might be able to move to a nursery school teacher. Someone who went to college could be a kindergarten teacher or a child development center director."

"It will help you by working in the day care center, won't it?" said Becky. "It will give you experience. Then later if you want to you may be able to move up the career ladder."

"I hope so," replied Joyce. "That is why my home economics teacher suggested I work there. She also advised me to take some child development classes. They could help, too."

Just then Mark rushed in. "When is lunch? I'm starved!" he blurted out.

"Lunch will be ready soon," Joyce answered. "Here is a carrot. Go outside and swing for awhile."

Mark grabbed the carrot. He ran outside slamming the backdoor on the way. "Are you sure you like working with children?" Becky asked jokingly.

Both girls laughed. Then Joyce told Becky about her first day at the child day care center. "I got run over by a four-year old on a tricycle, and was painted with water colors—accidently, of course. Also I was soaked with water in water play." Joyce explained.

"I bet you didn't want to go back after that day." Becky spoke up.

"Oh, yes, I did," Joyce explained. "You see, it wasn't really a failure. It is fun helping children learn through play."

"Well, what kind of things do you do?" Becky questioned.

"There is alot to do." Joyce started out. "I watch the children when they play outside. And I think up games to teach them. Then we all play together. Inside I help the children with projects. In art I supervise them as they paint and draw. For science lessons we do simple experiments like freezing water to see how it changes. And in math we learn our numbers."

"Isn't it hard to think up all those things to do?" Becky asked. She didn't know children did so many things in a child day care center.

"Well, I don't have to plan all the lessons." Joyce explained. "Now I can help the teachers with activities they have planned. As I gain more experience I may be able to plan my own lessons for the children."

By then lunch was ready. Joyce called Mark, and they all sat down to eat. In a little while Joyce's mother would be home. Then Joyce would be off to another afternoon at the day care center. She knew



this would give her experience. She would be better prepared for a job after high school. She would also

be deciding if she liked this kind of work. And she was sure she would.

### Clothing Story

#### Objectives:

1. To inform students of career opportunities available in clothing occupations.
2. To inform students how they may prepare for future jobs by taking related courses while in high school.
3. To inform students of the skills required for certain occupations.
4. To inform students of sources to help in finding jobs they like.

#### Uses:

This story could be used in a clothing unit to show the occupations available in this area. The students could determine the quality of work which would be necessary to obtain a position as a seamstress.

Discussion questions which could be used following the story include:

1. What are some of the career opportunities available in clothing in your community and what do they involve?
2. How can you prepare for an occupation in clothing while in high school?
3. Who can you get help from in finding a job?
4. What factors might influence a person to select a career in this area?

### Betty's Delight—A Job She Enjoys PART I

Betty rushed into class just as the bell was ringing. "Guess what?" she whispered to Jane her best friend. She acted very excited.

"Okay class," the teacher broke in, "Let's begin the lesson for today." Betty glanced at Jane. Neither said anything. They knew they would have to wait until after class to talk. Jane wondered what Betty was so excited about.

Before long the bell rang. Class was over. Betty and Jane met in the hall. "What's the big news?" Jane asked.

"I have a job!" Betty answered.

"A job?" Jane replied. "Where? Doing what?"

"I am a stock girl in a clothing store downtown," Betty answered proudly.

"A stock girl?" Jane questioned. "What do you do?"

"I fold or put clothes on hangers. Sometimes I sew on loose or missing buttons or hooks. And I take care of clothes after they have been tried on by customers."

"Betty, I just can't believe this!" Jane exclaimed. Just then another friend bumped into them. "Hey, Kelly, did you hear this?" Jane called. "Betty's got a job as a stock girl in a clothing store. She takes care of clothes and . . ."

"Yes, I heard," Kelly interrupted. "But Betty, I didn't even know you wanted a job. How did you get it?"

"Yes, tell us all about it," Jane begged.

"Listen, why don't you both walk home with me," Betty said. "It's on your way. And we can talk. You see I have to be at work soon. So I don't have very much time."

"You work after school?" Jane asked.

Betty nodded her head. "And on Saturdays."

"Okay, let's go," Kelly said. And all three started off for Betty's house, talking as fast as they could.

"Well, I have always liked clothing courses—you know that," Betty began. "One day in home economics class some of the girls were talking about summer jobs. Nobody wanted a full time job. They just wanted to make a little extra money. But I said I wouldn't mind having a job if it would involve clothing." Betty stopped to catch her breath. "Anyway the teacher overheard us talking. So she told me there were lots of jobs centered around clothing."

"Really?" Kelly interrupted. "I didn't know that. What are they?"

"Well, there are five different areas of occupations in clothing. These are related to home economics. Then there are several jobs in each area. I'm in merchandising. And I'm starting at the bottom of the ladder," Betty explained.

"The ladder? What ladder?" Jane shook her head. "Betty, what are you talking about?"

"Oh, I am sorry," Betty apologized. "I was referring to the career ladder. All the jobs in one area,"

Betty continued, "could be placed on a make-believe ladder. The jobs or occupations requiring the highest qualifications are on the top of the ladder. These occupations also have the most specialized duties. The jobs requiring less qualifications are further down the ladder. And those requiring the least qualifications are on the bottom."

"So that is why you said you were on the bottom of the career ladder." Kelly added.

"Right," agreed Betty. "But there are ways to move up the career ladder."

"How can you do that?" Jane asked.

"As you gain experience," Betty replied, "you may be able to move up. Or if you get further education."

"You mean you have to go to college?" questioned Jane.

"Oh, no," answered Betty. "Some occupations require a college degree, or course. But many do not. Some skills can be learned as you work."

"I bet you have to be a high school graduate though, don't you?" Kelly wondered aloud.

"Yes, for most of them you do," Betty answered.

"But you didn't." Jane put in. "You got the job as a stock girl. And you haven't graduated."

"That's true," said Betty, "but I was lucky to have had some classes in home economics. Those clothing courses I have taken helped me to qualify for the job."

"I am really happy for you, Betty," Kelly said. "You sound like you like your new job alot. But is this the kind of job you want when you get out of school?"

"Well, that is the good thing about my job. There is always an opportunity for advancement." Betty replied.

"What kind of jobs could you move to?" Jane asked. "You never told us the jobs on the career ladder in your area. What did you call your area? Merchandising?"

"Yes, it's merchandising," Kelly helped out. "But what are the jobs?"

"There are jobs for salespersons, and comparison shoppers, and personal shoppers. Also jobs for fashion coordinators and buyers," Betty said.

"I would like to know more about those jobs. It would help to know more about career ladders, too." Jane said.

"I suppose we could ask the home economics teacher. She helped Betty find a job. And she likes it." Kelly added.

"Or the guidance counselor could help us too." Jane replied.

"That's a good idea." Betty concluded. "Well, we're here. I'd better get ready."

"Will you be at the game tonight?" Jane asked.

"Sure, I get off in plenty of time." Betty answered.

"Okay, we'll save you a seat. And you can tell us how your job went." Kelly added.

"That sounds good." Betty called out as she went into the house.

"Everything she said sounds good to me." Kelly said.

"Me, too." Jane agreed. "Let's find out about jobs for ourselves."

Kelly nodded her head in agreement. Then both girls waved as they walked to their separate homes.

## PART II

"Hey, Betty, up here," Jane and Kelly yelled to their friend. Betty was just in time. The basketball game hadn't started yet. Betty had come from her job as a stock girl in a clothing store. She looked up in the stands and she saw Jane and Kelly waving to her. She climbed up the bleachers to where her friends sat.

"How was work?" Kelly asked as soon as Betty sat down.

"Just fine," Betty answered. "I am getting along real well." Then she asked, "Are you two still thinking about getting a job like mine?"

"Oh, yes," Jane answered, "we are going to ask about it tomorrow."

Just then the game started. Everyone yelled as the players came out on the court. Betty, Jane, and Kelly forgot about jobs. They started cheering with the crowd. It was an exciting game. They enjoyed the game, especially since their team won.

The next day Kelly talked to her home economics teacher, Mrs. Walker. She asked her about occupations related to clothing. Betty had already told her there were five areas of occupations in clothing. Betty's job as a stock girl was in the area of merchandising.

"The areas in clothing including merchandising," Kelly's teacher told her, "are listed on the board." Kelly looked at the list. She was afraid she would forget. So she wrote them down. This is Kelly's list:

*Areas of Occupations in Clothing*  
*merchandising*  
*clothing alteration*  
*clothing design and construction*  
*theatrical costuming*  
*dry cleaning*

"You see, Kelly," Mrs. Walker said, "merchandising is mainly concerned with buying and selling clothing. The four other areas have occupations which deal with constructing and caring for clothing."

"I think I would like that even better," Kelly said



excitedly.

"You have had lots of experience in sewing, Kelly," Mrs. Walker said. "You could probably get a job as a seamstress. There are opportunities for seamstresses in both clothing alteration and clothing design and construction." Mrs. Walker added.

"What does a seamstress do?" Kelly asked.

"A seamstress makes garments. She may also alter or repair them. She may use a sewing machine, do hand sewing, or both," Mrs. Walker replied.

"I think I would really enjoy that," Kelly exclaimed. "But what qualifications would a person need to get a job as a seamstress?"

"This is where your clothing classes will help you," Mrs. Walker explained. "A seamstress must be skilled in fitting a pattern to a customer. And she must know how to make alterations and do mending."

"I'm glad I have taken courses which will help me get a job," Kelly said. "I hadn't realized before how important it is to prepare for the future."

"It helps you get into an occupation you like." Mrs. Walker added.

"Betty told us about career ladders yesterday. What are some other available occupations in these areas?" Kelly asked.

"There are occupations for dressmakers and copyists," Mrs. Walker started out. "Copyists sketch gar-

ments to show current fashions. Then there are tailors and designers. Designers are the top of the career ladder," Mrs. Walker continued. "There are also occupations for wardrobe assistants and costumers in theatrical costuming, and dry cleaners and pressers in dry cleaning."

"Wow! I didn't know there were so many jobs." Kelly exclaimed.

"Oh, there are other occupations besides these." Mrs. Walker broke in, "But these will give you an idea."

"I think I would like being a seamstress. Maybe later I could move up the career ladder. If I wanted to, that is," Kelly said thoughtfully.

"Of course," Mrs. Walker agreed. "You may want to talk to the guidance counselor, Kelly. She may be able to help you find a job as a seamstress."

"Good," exclaimed Kelly, "I will talk to her next. Thanks for helping me."

Later that day Kelly met her two friends, Betty and Jane. She told them all about her talk with Mrs. Walker. They were glad to hear about all the occupations available in clothing. Jane was also glad to know how she could prepare for a future occupation. Now she could plan before she was out of high school. Kelly was excited about finding a job. And Betty was happy, too. She had helped her friends plan for a future they could enjoy.

## Food Service Story

### Objectives:

1. To inform students of career opportunities available in food services.
2. To inform students of the qualifications necessary for beginning workers in food service.
3. To inform students of the duties of a busboy and waiter.
4. To familiarize students with career ladders and how they work.
5. To inform students how they may prepare for future jobs by taking related courses while in high school.

### Uses:

This story could be followed by a role play between students showing the appropriate behavior for a busboy or waiter. It could also serve as a beginning for discussions on various occupations in food service.

The following questions may be asked:

1. What occupations in food service are available in your community?
2. What tasks do people in these occupations perform?
3. What qualifications are necessary to be a busboy or busgirl?
4. What is a career ladder, and how does it work?
5. How can one prepare for future occupations while in high school?
6. What would determine whether a person would enjoy a career in food service?

## A Career in Food Service:

### Plan NOW

This was a special day for Julie. It was her birthday. Her parents were taking her to a restaurant for a birthday supper. Her brothers and sister were going, too. She was very excited. The day seemed long

to Julie.

Finally it was time to go to the restaurant. She wore her best dress. Her family was dressed up, too. This was a special occasion for them, too. Julie's



family didn't eat out very often.

When they got to the restaurant, someone led them to a big table. It was just the right size though. There were six of them. Then someone brought them menus. Julie was busy deciding what to order. Suddenly she realized who that "someone" was. It was Jerry, one of her classmates.

Jerry, what are you doing here?" Julie said rather loudly.

"Shh," Julie's mother said quickly.

"Jerry, what are you doing here?" Julie repeated, this time whispering.

"I work here," Jerry replied quietly. "May I take your order?"

"Jerry, I didn't know you worked here," Julie said ignoring his question. "When did you start working in a neat place like this? Jerry, tell me . . ."

"Julie, stop asking questions," Jerry interrupted. "I will tell you all about it tomorrow at school. Right now just relax. Enjoy your birthday supper. Okay?"

"Okay," Julie promised. She enjoyed her birthday supper all right. Everything was perfect. But she was also watching everything Jerry did.

Jerry seated them at their table. He brought them menus and answered their questions about some of the foods listed. And he took their orders and brought their food later. Several times he refilled their water glasses and brought fresh coffee for her parents. He was always polite and courteous. And he had a very neat appearance.

Julie had never seen Jerry like this before. She was impressed. By the time the meal was over Julie knew most of the duties of a waiter.

The next day at school during lunch Julie talked to Jerry. She asked him about his job. "How did you get that job?" Julie asked.

"Well, I started out as a busboy. Busboys or busgirls have several duties," Jerry began. "I set the tables, removed dirty dishes and replaced soiled linen. I made coffee and kept the service bar supplied with food. I ran errands and sometimes delivered food orders."

"What qualifications did you need to be a busboy?" Julie asked.

"A busboy or busgirl must have a neat, clean appearance at all times," Jerry explained. "They must be courteous and respectful with customers. And they must be able to take orders and work quickly. There is also a health requirement they must meet."

"When did you become a waiter then?" Julie questioned.

"Most of the qualifications are the same," continued Jerry. "So when I had some experience I got to move up the career ladder."

"Oh, yes," Julie broke in, "I remember our home economics teacher telling about career ladders. A

career ladder contains all the jobs in one area. The jobs or occupations requiring the least qualifications are at the bottom of the ladder."

"And those requiring the most or highest qualifications are at the top of the career ladder," Jerry finished.

"Do you know some other occupations in this area? Ones you could move to?" Julie asked.

"I can't remember," Jerry admitted. "but I am sure the home economics teacher can tell you."

Later that day Julie went to home economics class. She asked her teacher what other occupations were available in food service. What she found out was hard for her to believe.

"Julie," her teacher started out, "there are a great number of occupations in food service. In fact, there are five different areas of food service occupations. Some of them you have probably never thought about."

"The area Jerry is in, of course, is restaurant. There are many other occupations besides the two he told you about. Restaurants also need hostesses and managers. Also cooks, bakers, and chefs and kitchen helpers and supervisors work in restaurants."

By now several other students were listening to the conversations. They would soon be needing jobs. So they were interested in learning all they could about occupations.

"Another area," Mrs. Walker, the teacher continued, "is school food service."

"School food service!" one of Julie's classmates exclaimed. "I never thought about that."

"Sure," Mrs. Walker replied, "schools need cooks, and cook's assistants, and directors so all of us can have nutritious meals."

"An area you probably haven't thought of as related to food service is airlines," Mrs. Walker said.

"Airlines!" shouted several students at once. Julie was just as surprised as the others. She certainly hadn't thought about airlines as related to food service.

"Airlines serve food on the planes," Mrs. Walker explained. "So they have to have nutritionists and food service supervisors. They plan and supervise the meal service. And stewardesses need to know about planning and serving meals."

"You have told us about a lot of occupations already," Julie said. "Are there other areas?"

"Cooperative Extension Service is another area," Mrs. Walker continued. "Extension needs program aides and assistants and home economists. These people teach families good nutrition and help them change poor food habits."

The last area is dietetics. Dietary workers and assistants as well as dietitians are needed. They work on food service programs in hospitals, restaurants, and

other institutions." Mrs. Walker finished.

"There are sure a lot of occupations in food service I didn't know about," Jerry commented. "I am glad I took courses in food service in home economics. They helped me get in an area with several occupations I would like."

"I think food service has enough occupations for all of us," Julie added. "That is if we wanted them. And of course if we plan ahead so we will be able to

qualify for them."

"I think I need to start planning," one of the students said.

"Me, too," said several others in agreement.

"I think you have already begun," said Mrs. Walker. "But let's continue planning ahead right now in class. This will give you a head start when you choose an occupation," she added, "because you will be prepared."

## **Housing and Home Furnishings Story**

### **Objectives:**

1. To inform students of career opportunities available in housing and home furnishings occupations.
2. To inform students of the duties of an upholster and a furniture finisher.
3. To explain the concept "on-the-job training".
4. To familiarize students with career ladders and inform them of the relationship between job responsibilities and position the career ladders.
5. To inform students of the value of taking courses in high school which will prepare them for future occupations.

### **Uses:**

This story could be used in a housing and home furnishings unit or in a unit orientating students to occupations. The students could find out how they could prepare for some of the other occupations named in the story, and a discussion of these qualifications could follow.

Discussion questions such as these could also follow the story:

1. Name as many occupations as you can that require some knowledge of housing and home furnishings?
2. What are some of the career opportunities available in these areas in your community?
3. What do workers in these occupations do?
4. What does on-the-job training mean?
5. What does career ladder mean, and what determines how occupations are placed on career ladders?
6. What determines how much money a person will earn in an occupation?
7. What factors might influence a person to select an occupation in this area?
8. How can one prepare for future occupations while in high school?

## **Janie Plans for the Future**

Rrrring. Rrrring. It was the telephone. Janie was painting an old desk for her bedroom. Rrrring. She glanced quickly at what she had just finished. Then she ran for the phone.

"Hello," Janie answered. She was a little out of breath.

"Hi, Janie," Carol said. "I thought maybe you weren't home. I was about to hang up."

"Oh, I was painting," Janie replied. "You remember that old desk my folks were going to throw away?"

"You mean that one up in the attic?" Carol asked.

"Yes, that's the one," answered Janie. "I am redoing it to put in my room."

"Really," remarked Carol. "I bet it will look nice. But isn't it hard to do?"

"Well, it took me all last week just to sand off the old varnish," answered Janie. "But I finally got done.

Then I got some antique paint," she continued. "I had just finished painting when you called."

"Oh, I want to see it," Carol said.

"Why don't you come over?" Janie invited.

"Well, that is why I called," Carol said. "I met Barb up town. She showed me the pictures she took on our class trip. Then she stopped by my house to see mine. We thought you might like to see the pictures, too. There are some really good ones," Carol added.

"Some silly ones, too!" Barb shouted. She wasn't talking into the phone, but Janie could hear her.

"Good," Janie "Why don't you both come over then. Bring the pictures. I'll make some lemonade. Then you can see the desk, too."

"Okay," said Carol. "See you in about fifteen minutes."

"Okay, goodbye," replied Janie.



"Bye," said Carol.

Janie went back into the bedroom. She cleaned her equipment and put it away. She hurried and made the lemonade. Then she heard a knock on the door. It was Carol and Barb.

"Come on in," Janie said as she opened the door.

"Well, where is the masterpiece?" Barb asked.

"Here, in my bedroom," Janie answered. Carol and Barb followed Janie to her room. There was the desk. It looked like new.

"Oh, it's beautiful!" Carol exclaimed.

"Janie, how do you do it?" Barb asked. "You really have talent."

"Oh, I don't know about that," Janie replied. "I just like to do this kind of thing. It's hard work. But I enjoy it."

"Well, you sure did a good job," Carol remarked.

"I think I'll refinish my night stand next," Janie said. "Then I am going to try to reupholster that chair by the window. I am learning how in a course I'm taking at school."

"You should try to get a job doing this kind of work," Barb said.

"I am going to when school is out," Janie stated proudly. "The home economics teacher is encouraging me. She said I am developing skills now which will help me in an occupation later."

"You mean you will be able to get a job when school is out?" Carol asked. "As a furniture finisher or an upholsterer?"

"Right," answered Janie.

"That's great!" commented Barb.

"What exactly would you do?" asked Carol.

"As an upholsterer I would repair and rebuild upholstered furniture," Janie explained. "And as a furniture finisher I might strip off old varnish. Then I would probably sand and stain or antique the furniture."

"You should know how to do that!" Carol exclaimed.

"Some things I don't know. But I can learn them in on-the-job training. That means a person is trained to do something while he is working on the job," Janie explained.

"So if you don't know how to do something," Barb added, "They will show you how after you get the job."

"Exactly," Janie answered.

"You should really enjoy an occupation like that," Carol remarked.

"I think I will," Janie agreed. "But if I don't, there are several other housing and furnishings occupations. I could move to another occupation if I wanted."

"That is called moving up the career ladder.

Right?" Barb added.

"Yes," answered Carol. "I remember the home economics teacher explaining career ladders. A career ladder," she continued, "includes all the occupations in one area. These are listed according to the qualifications needed."

"So what are some of the occupations available in housing and home furnishings?" Barb asked.

"Well, there are two areas. Each has several occupations in it," Janie explained. "One area is interior design and decorating. And the second is household equipment."

"Which one would you be in as a furniture refinisher or an upholsterer?" questioned Carol.

"Interior design and decorating," Janie answered. "Other occupations in this area include sales and drafting. Draftsmen draw detailed plans of manufactured items," she continued. "There are also occupations for buyers and designers. Designers actually plan and direct interior decorating."

"What about the household equipment area?" asked Barb.

"In household equipment there are also occupations in sales," Janie replied. "and repair and home service representatives, and household equipment specialists."

"You would certainly have a wide choice if you wanted to change jobs," Carol commented. "Would you make more money if you moved up the career ladder?" she asked.

"Not necessarily," Janie explained. "Most occupations do pay more as you move up the career ladder. But it depends on the area and the occupation you are in. Some occupations that are low on the career ladder pay well."

"It also makes sense to plan ahead," Barb added. "I can see that."

"Speaking of seeing something," Janie said, "let me see the pictures."

"Oh, yes, I almost forgot," Carol said. She reached for her purse and got the pictures. "Here," she said as she handed them to Janie. All three girls laughed as they looked at the pictures. Janie got them lemonade. And they had fun talking about the fun they had on the class trip. Finally it was time to go.

"Thanks for having us over," Carol said as they were leaving.

"And for telling us all about the occupations in housing and home furnishings," added Barb. "It has certainly given me something to think about. I am going to start planning my future."

"I am glad I could help," Janie replied. "It is always good to be prepared," she added as she waved goodbye.



## Home Management and Family Economics Story

### Objectives:

1. To inform students of career opportunities available in home management and family economics occupations.
2. To provide a brief description of the tasks performed in this area.
3. To familiarize students with career ladders and inform them how vertical movement is possible.
4. To inform students of sources of information and counsel about occupations.
5. To inform students of ways to prepare for future occupations.

### Uses:

This story could be followed by a discussion of the specific skills needed to obtain each of the occupations mentioned. Role playing could also be used to show the actual working situations and what is needed to do the job well. Further lessons could be presented in which the students actually learn the skills needed for these jobs.

Discussion questions which could be used following the story include:

1. What career opportunities in home management and family economics are available in your community?
2. What skills are needed to get employed in occupations in these areas?
3. What factors might influence a person to choose a career in this area?
4. How is one's position on a career ladder affected by education and work experience?

## Home Management and Family Economics Story

"Come and get it!" Sharon yelled. "Everything's ready." Several classmates had gotten together for a picnic. At Sharon's voice everyone rushed to the table. Some grabbed hot dogs and started roasting them. Others filled their plates with other food from the table.

"Mmm, the food's good," Rick said.

"It sure is!" several others shouted in agreement.

"What is everyone doing this summer?" Paul asked.

"Some of us just discovered we are working in similar jobs," Pam said.

"How's that?" Joe asked.

"The occupations all deal with home management and family economics," answered Patty. "Mine is in homemaker service."

"I'm working in a private household," remarked Pam.

"And I'm in public housing," replied Ken.

"Do those all deal with home management and family economics?" asked Cheryl.

"Right," Pam answered, "homemaker service, private households, and public housing are related."

"Then you all have different jobs," commented Joe, "but they are related to the same thing." Pam and Patty and Ken nodded their heads in agreement.

"Well, what kind of jobs do all of you have?" Sharon asked.

"I am a homemaker/home health aide trainee," Patty said proudly.

"That is a pretty impressive title," Rick remarked.

"Do you think you can handle the job?"

"Why, of course," answered Patty.

"What kind of work will you do?" asked Cheryl.

"The homemaker service program is for families," Patty explained. "It helps families take care of themselves and manage their homes. We visit homes so we can give the families aid and guidance."

"Will you be visiting homes, too?" Paul asked.

"I am just a beginner in the program. A trainee is what I am called," Patty continued. "Those who have been in the program longer supervise me. They show me what to do. And they help me when I need it."

"Then you are at the bottom of the career ladder," Ken guessed. Patty nodded her head yes.

"I know what a career ladder is," Sharon spoke up excitedly.

"Okay, Sharon, what is a career ladder?" asked Pam.

"A career ladder is all the occupations in one area," Sharon began. "They are listed in order. The occupations requiring the least qualifications are on the bottom. And those with the most are on the top."

"How can a person move up the career ladder, Sharon?" Joe asked.

"A person can move up the career ladder when he gains experience. Or he can move up when he develops the skills needed," Sharon replied. "One of these two things must happen."

"Very good," Rick complimented. "You learned that lesson in home economics well." Then everyone

clapped their hands for Sharon. And she blushed.

"That's okay, Sharon," Ken said. "It is important to know that."

"Patty," Paul asked, "what are the occupations you could move to?"

"There are eleven occupations in this area," Patty started out. "After being a trainee I can move through four levels of homemaker/home health aides. There are occupations for associates and professional workers and consultants. Also there are occupations for supervisors and aide trainers and administrations," Patty finished.

"Wow! There are really a lot of jobs available to you in that area," Cheryl remarked. "That's great!"

"Do all of those jobs work with families then?" Joe asked. "Do they help families in managing the home and caring for the family?"

"That's right," answered Patty.

"Then how does that relate to Pam's job in private households?" Joe questioned.

"They are related because they both serve the family," Pam said. "Private household occupations involve working directly in the home. This could be cooking meals. Or taking care of clothing. Or it could involve cleaning house."

"In fact," added Patty, "working in private households is one of the lattice possibilities in my occupation."

"Lattice possibilities? What's that?" asked Cheryl.

"That means you could branch out to other jobs with the experience you have," Patty explained. "With what I learn in homemaker service I could get a job in several different areas. I could go into child care or foods and nutrition or clothing or health careers. It would depend on what I'm interested in," Patty added. "Private households is a possibility though, too."

"I see," said Sharon, "you really have a lot of possibilities, Patty. And your areas *are* related. What kind of job do you have, Pam?" she asked.

"I am a personal maid to Mrs. Morris," Pam replied.

"Oh, is she that nice, old lady who lives on Elm St.?" asked Cheryl.

"She's the one," said Pam. "She can't care for herself and her home as well now that she is older. And I think she likes having someone in the house for companionship. She's a great person, too. I really enjoy working for her," Pam added finally.

"What exactly do you do?" asked Rick.

"I clean and press her clothes. And I help her dress. I keep the house clean and tidy," Pam explained. "I fix her breakfast when I get there in the morning. And I plan what she can eat for supper before I leave. Sometimes I run errands, too."

"That's a lot of work!" Cheryl exclaimed.

"Yes," admitted Pam, "but I get a lot of satisfaction from doing it. And I am gaining experience, too."

"The experience will enable you to move to other jobs in that area, won't it?" Paul questioned.

"That's right," replied Pam, "and there are several opportunities in private households too."

"Like what?" asked Ken.

"Like laundress or day worker or waitress. There are opportunities for several types of maids," Pam explained. "Several skills and experience are needed to be a clothing maintenance specialist or a family dinner service specialist. Housekeepers have to have experience too," she concluded.

"I didn't realize that so many skills were required to work in this area," Patty confessed. "How does a person learn to do these jobs?" she asked.

"I took a vocational course in school," Pam answered. "It got me ready for work in this area. Otherwise, I wouldn't have gotten the job with Mrs. Morris. It sure helps to prepare for an occupation while you are still in school."

"That's another good thing about your area," Joe commented. "You are prepared for several occupations."

"Ken, there are several jobs on the career ladder in your area, too," remarked Sharon.

"Your area is public housing, isn't it?" Cheryl interrupted.

"Yes, in public housing I should be able to move up the career ladder easily," Ken replied. "As I gain experience, that is. And if I do my work well."

"What do you do in public housing?" Rick asked.

"Well, the public housing projects are involved with several things. The manager develops policies and directs housing projects. Someone else interviews people who are applying for housing," Ken explained. "A consultant fits together all the activities."

"What is your job then?" Patty asked.

"I am a housing management aide," Ken continued. "I am like Patty. I am just learning. So I help the assistants with their work in the office. They keep records and take care of people who are moving and things like that."

"As you learn the job, you will gain experience. Then can you move up to an assistant's job?" asked Paul.

"I hope so," replied Ken.

"Wow! I can't believe all of you are in similar occupations," said Joe.

"And they sound like good ones, too," Rick added.

"Well, if you have questions about occupations," remarked Ken, "just ask the home economics teacher."

"Or the guidance counselor," added Pam. "They



can help you plan for the future. You can take courses in high school that prepare you for work."

"That way we all can have better futures," Sharon concluded.

They had finished their hot dogs. "Say, who wants

to roast marshmallows?" Rick asked. He jumped up and got the bag of marshmallows from the table. Everybody took a few and started roasting them. It had been a fun picnic. One reason was certain. They didn't have to worry about their futures. They had prepared for what they were going to do.

### Nursing Story

#### Objectives:

1. To inform students about career opportunities in the field of nursing as related to home economics.
2. To inform students where they may get help if they have questions about occupations.
3. To inform students how they may prepare for future jobs by planning their high school courses.
4. To help remove stereotypes of "women's work" and "men's work" in the field of nursing.
5. To inform students of some of the qualifications necessary for different nursing careers.

#### Uses:

This story could be used in a unit on orientation to the world of work or a family health unit. If it is used in a family health unit then students might benefit from describing duties of a nursing aide which are similar to those used in the home in caring for the sick.

This story could be followed by a discussion including questions such as these:

1. What are three different kinds of nurses?
2. How are the qualifications different among these three types of nurses?
3. How do their duties differ?
4. What might influence a person to choose a career in nursing?
5. How can one prepare for a career while in school?
6. How can one get information about a nursing career?

### Susan Wants to be a Nurse

Several students were walking home after school. They decided to stop and get a coke. They often got together like this just to talk and have fun. Today they were talking about the kinds of jobs they would like to get when they were out of school.

"I want to be a nurse," Susan said.

"A nurse! I didn't know you wanted to be a nurse," Alice spoke up. "Why do you want to be a nurse?"

"To meet a cute doctor, I suppose," Jim answered jokingly.

"Oh, Jim, be serious," Susan said. "I've just always wanted to help people, especially people who are sick."

"That's great!" said Janet. "You would make a good nurse, Susan."

"It is hard work being a nurse, you know," said Roger. "Have you thought about that?"

"Yes, I know it would be hard work," Susan answered, "but it would be satisfying, too."

"Besides," Roger continued, "you have to go

through nurses' training. And it's hard, too. Some people don't make it."

"Oh, Roger, why do you always have to ruin everything!" several girls said at the same time. "You don't have to be so discouraging."

Susan did look a little worried. She was thinking about what Roger said. She spoke slowly. "That's okay, girls. Roger is right. I do have to think about the training it takes to be a nurse."

"Why don't you ask the counselor about it," Alice said trying to comfort her. "She can probably help you decide what to do."

"That is a good idea." Susan looked cheered up already. "Tomorrow I'll see her at school."

The next day Susan talked to the guidance counselor. She told her something she had not known before. She said there were different kinds of nurses. "A registered nurse is the most highly qualified," she said. "It takes a registered nurse about three years to complete training. A registered nurse is often called an RN."



"Another kind of nurse," she continued, "is an LPN or a licensed practical nurse. The LPN can be trained in only one year. The work of the LPN isn't as highly specialized as the RN."

She also told her that nursing aides helped in hospitals. "They care for patients under the direction of the nursing staff. They have to meet certain qualifications. But they don't require any special training before being employed."

"Of course, you realize, Susan," the counselor warned, "the more highly qualified person is more highly paid. Another thing," she added, "not all nurses are girls. Many times we refer to nurses as 'she'. But this sometimes is wrong. Boys can be nurses, too."

Susan had never thought of this. She could see how a boy could make just as good a nurse as a girl. Susan talked to the guidance counselor for a while longer. She felt a lot better. She couldn't wait to tell her friends the good news. That afternoon they were all together again.

"Well, what did she say? The counselor, I mean," Janet asked excitedly.

Susan told them all about what the counselor had said. She told them about the different kinds of nurses. She described the registered nurse and the licensed practical nurse. And she told them about the nursing aides.

"The counselor suggested I work as a candy striper. She said I could learn more about nursing that way. Then I would know if I really want to be a nurse," Susan continued.

"I know what a candy striper is," Vicki interrupted. "My sister used to be one. She worked as a volunteer at the hospital. She helped the nurses care for patients."

"Why do you call them 'candy stripers'?" Jim asked.

"Because their uniforms are red and white striped, silly," Vicki answered.

"That's a good reason," Jim replied laughing. Everyone joined in the laughter.

"The counselor also suggested I take some home economics courses," Susan added when her friends were quiet again. "She said courses in food and nutrition and health would help prepare me to do a good job. I think I will ask the home economics teacher what classes I can take."

"Well, it looks like I wasn't so hard on you after all," Roger said. "All of you girls will probably want to be nurses now."

"Oh, I almost forgot," Susan said quickly. "The counselor said that girls weren't the only ones who could be nurses. Boys make good nurses, too!"

"You're kidding."

"You mean *boys*?"

"Surely not . . ." Everyone was talking at once.

"Well, why wouldn't a boy do as well as a girl?" Vicki asked finally.

"I guess we have ideas that only girls can do some jobs and boys can do others," Jim added, "which isn't always true."

"It sounds like this field might be good for anyone who wants to enter it," Susan concluded.

**Courses for Home Economics Teachers  
1975 Summer Session  
University of Illinois—Champaign-Urbana**

June 11 — July 3 (First Four Weeks)

Votec 456	Problems and Trends in Home Economics Education		
1 unit	10—12 T W Th F	Dr. Judy Brun	22 Education Building
H. Ec. 323	Recent Advances in Foods and Nutrition		
2 hours	8—10 T W Th F		449 Bevier Hall

July 7 — August 1 (Second Four Weeks)

Votec 459	Curriculum Development in Family Relations and Sex Education		
1 unit	9—12 T W Th F	Mrs. Helen Westlake	22 Education Building
H. Ec. 375	Home Equipment		
3 hours	9—12 T W Th F	Mrs. J. Anderson	166 Bevier Hall
H. Ec. 410	Problems in Family Living		
1 unit	10—12 T W Th F	Dr. S. Salamon	208 Child Development

June 11 — August 1 (Eight-week Courses)

H. Ec. 301	Advanced Problems in Home Guidance of Children		
3 hours	1—3 T Th (Labs arranged)	Dr. Q. Mills	208 Child Development
H. Ec. 330	Experimental Foods		
3 hours	1 T Th Lecture—Lab 2—5 T Th or 1—4 W F		328 Bevier Hall
H. Ec. 388	Problems in Textiles and Clothing—Weaving		
2 to 4 hours	Conference arranged	Nancy Fisher	174 Bevier Hall

*Note: Summer session registration is Monday, June 9 through Tuesday noon, June 10, 1975. Instruction begins Wednesday, June 11, 1975.*

## METRICS COURSE

Have you enrolled in "The Home Economics Teacher and Metrics?" It is a correspondence course designed to help you learn and teach metrics. The introduction and first two lessons of the course were in issue two of *The Illinois Teacher of Home Economics*. Lessons three and four were in issue three, and lessons five and six are in this issue. Issue five will contain lessons seven and eight. We hope you will take advantage of this in-service education opportunity and send your lessons in today!

### LESSON FIVE

#### MASS

#### Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your response sheets.

\_\_\_\_\_ Pretest

#### *Objectives for the lesson*

The student will:

- \_\_\_\_\_ (1) utilize the metric knowledge she has learned in previous lessons.
- \_\_\_\_\_ (2) be able to explain the difference between "mass" and "weight."
- \_\_\_\_\_ (3) learn the terms kilogram, gram, and milligram; the amounts they refer to; and their symbols.
- \_\_\_\_\_ (4) acquire and use a gram scale.
- \_\_\_\_\_ (5) be able to indicate equivalent metric units of mass for our customary units.
- \_\_\_\_\_ (6) estimate mass in metric units.

#### Materials needed

- \_\_\_\_\_ Gram scale
  - \_\_\_\_\_ Materials to measure such as water and food
  - \_\_\_\_\_ Metric volume measure used in lesson four
- Some of the optional activities require additional materials.

#### *Resources you may wish to acquire (Optional)*

Note: When available, the maximum scale value is given, followed by a number which indicates the size of the divisions on the scale dial. Thus, "1000 grams x 2 grams" means that the scale will measure mass up to 1000 grams, and the dial is divided into intervals of 2 grams each.

- \_\_\_\_\_ Pelouze dietetic scales, dial face rotates to offset weight of container and/or food, capacity: 1000 grams x 2 grams for Model YG-1000 OR capacity: 500 grams x 1 gram for Model YG-500 (\$25.95) (discount for quantity orders) from store or  
Ramor Sales  
1740 E. Summit Ct.  
Deerfield, IL 60015
- \_\_\_\_\_ Weighmix scale, adjustable horizontal dial can be adjusted to offset weight of container and/or food, 88123 (\$22.30) from:  
Dick Blick Company  
Post Office Box 1267  
Galesburg, IL 61401
- \_\_\_\_\_ Metric pan balance, large dial scale, removable scoop, capacity: 2 kg x 2 grams, 4-950 (\$8.50) from:  
Spectrum Educational Supplies Limited  
9 Dohme Avenue  
Toronto, Ontario M4B 1Y7



\_\_\_\_\_ Bathroom scale; kilograms and pounds; red, white and blue; "Think Metric"; (\$9.95) discount for quantity orders from:  
Swani Publishing Co.  
P.O. Box No. 248  
Roscoe, IL 61073

\_\_\_\_\_ Bathroom scale, capacity 125 kg x 500 grams, 4-960 (\$9.00) from:  
Spectrum Educational Supplies Limited  
9 Dohme Avenue  
Toronto, Ontario M4B 1Y7

#### *Resources you may wish to explore (Optional)*

\_\_\_\_\_ Gaucher, Claire and Sophia Perry. "What Impact Will Metrication Have On Home Economics?"  
*Forecast For Home Economics*, March 1974, pp. F-14-16.

\_\_\_\_\_ "Metri-Cookery Adventures" (recipes) from:  
Reid Tool Supply Company  
Western Michigan's Metric Center  
2233 Temple Street  
Muskegon Heights, Michigan 49444

#### *Activities*

- \_\_\_\_\_ Reviewing information presented in lesson four
- \_\_\_\_\_ Reading about the difference between mass and weight
- \_\_\_\_\_ Acquiring a metric scale
- \_\_\_\_\_ Measuring mass in metric units
- \_\_\_\_\_ Estimating mass in metric units
- \_\_\_\_\_ Completing the response sheets and returning them to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

#### *Evidence of Learnings*

- \_\_\_\_\_ Completing the objectives
- \_\_\_\_\_ Having a tool for measuring mass in metric units
- \_\_\_\_\_ Completing and returning the response sheets
- \_\_\_\_\_ Taking the post test

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. The student who is not familiar with the metric system will probably finish this lesson in eight hours or less. The student with a knowledge of the metric system will be able to reduce the amount of time spent.

#### *Optional activities*

- \_\_\_\_\_ Use a gram scale and make recipes from a cookbook where the ingredients are specified in metric mass units.
- \_\_\_\_\_ Introduce the concept of weighing ingredients, rather than using volume measures, to your students. Encourage them to try and then evaluate both methods of measurement. What are the advantages and disadvantages of each? Which is easiest? Tabulate the results.
- \_\_\_\_\_ Write the *Home Economics Research Journal* (See Vol. 1, No. 2, p. 136) about your thoughts on whether metric volume or mass units should be used in recipes.
- \_\_\_\_\_ Obtain metric bathroom scales and encourage your students to measure their mass and height in metric units. One student might like to compile a metric height and mass table for all of the students. A number of statistics could be derived from this table.

- \_\_\_\_\_ Collect food labels that include mass measurements and look for nutrition information which utilizes mass units.
- \_\_\_\_\_ Have a metric mass guessing contest. Rather than guessing how many beans are in the jar, have the students guess how much mass, in metric units, a specific object has.
- \_\_\_\_\_ Measure a cup of flour in a metric volume measuring cup. Then weigh the flour on a metric scales. Record the weight. Repeat the procedure five times. Are the weights the same? Is measuring by volume accurate?

### PRETEST LESSON FIVE

The following questions will acquaint you with the material presented in lesson five. You are not expected to know the answers now and this test will NOT be used in your evaluation. The questions will help to introduce you to the concepts and help you recognize the important ideas when they appear in the lesson.

*Write the letter indicating the correct answer for each statement on the response sheet. You will find clues to the answers as you work the lesson.*

1. Mass is
  - a. the force of the earth's gravitational pull on an object
  - b. weight
  - c. the amount of matter in an object
  - d. a standard unit of weight
2. The smallest of the following units is the
  - a. pound
  - b. gram
  - c. metric tonne
  - d. kilogram
3. The largest of the following units is the
  - a. pound
  - b. gram
  - c. metric tonne
  - d. kilogram
4. One milligram has approximately the same mass as
  - a. a grain of salt
  - b. a thumb tack
  - c. 50 ml of water
  - d. one pound of butter
5. What is the approximate mass of one litre of water?
  - a. 1 gram
  - b. 2,2 grams
  - c. 500 grams
  - d. 1 kilogram
6. One kilogram is the equivalent of
  - a. 2,2 pounds
  - b. 1 pound
  - c. 18 ounces
  - d. five pounds
7. A woman who has a mass of 110 pounds would have a mass of approximately
  - a. 250 kg
  - b. 100 kg
  - c. 50 kg
  - d. 25 kg

8. One gram has approximately the same mass as
- a. a grain of salt
  - b. one pound of butter
  - c. a quarter
  - d. a thumb tack
9. The symbol for gram is
- a. gm
  - b. g
  - c. g.
  - d. G
10. The expression 7 000 milligrams may be written
- a. 0,07 kg
  - b. 70 grams
  - c. 0,7 kg
  - d. 7 grams
-



## RESPONSE SHEET: LESSON FIVE

The following lesson contains a number of questions followed by blanks with numbers. The answers are to be written on THIS sheet by the corresponding number. These response sheets are to be returned to your instructor. It is suggested that you keep a copy of these sheets since the University cannot assume responsibility for assignments lost in the mail. If you do not wish to remove these pages from the journal, they can be duplicated on a copy machine.

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_  
Votec x399 B

*Print your name and address within the box indicated above.*

The post test will be evaluated but the answers to the pretest and questions in the lesson will NOT be used to determine your final grade. The instructor uses the response sheet to find concepts that may not have been clear or items you may have misunderstood or are having trouble learning. You will find an answer sheet at the end of the lesson which will provide immediate feedback for many of the questions. It does not contain the answers for the pretest or post test. Please add additional comments if you desire.

*Write your answers below.*

PRETEST	LESSON FIVE	
1. _____	1. _____	11. _____
2. _____	2. _____	12. _____
3. _____	3. _____	13. _____
4. _____	4. _____	14. _____
5. _____	5. _____	15. _____
6. _____	6. _____	16. _____
7. _____	7. _____	17. _____
8. _____	8. _____	18. _____
9. _____	9. _____	19. _____
10. _____	10. _____	20. _____
		21. _____
		22. _____
		23. _____

24. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

25. \_\_\_\_\_

26. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

27. \_\_\_\_\_

28. \_\_\_\_\_

29. \_\_\_\_\_

30. \_\_\_\_\_

31. \_\_\_\_\_

32. \_\_\_\_\_

33. \_\_\_\_\_

34. \_\_\_\_\_

35. \_\_\_\_\_

36. \_\_\_\_\_

37. \_\_\_\_\_

38. \_\_\_\_\_

39. \_\_\_\_\_

40. \_\_\_\_\_

41. \_\_\_\_\_

42. \_\_\_\_\_

43. \_\_\_\_\_

44. \_\_\_\_\_

45. \_\_\_\_\_

46. \_\_\_\_\_

47. \_\_\_\_\_

48. \_\_\_\_\_

49. \_\_\_\_\_

50. \_\_\_\_\_

51. \_\_\_\_\_

52. \_\_\_\_\_

53. \_\_\_\_\_

## POST TEST

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_
6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_
10. \_\_\_\_\_

Please add additional comments if you desire.

Return the three (3) response sheets to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801. Include your return address and place the correct amount of postage on the envelope. You have finished five of the eight lessons in the course. Lesson six is also in this issue of the *Illinois Teacher of Home Economics*.



## LESSON FIVE

- I Review of volume
- II Mass and weight
- III Kilogram
- IV Gram
- V Milligram

### REVIEW OF VOLUME

In lesson four we studied volume. To calculate volume we utilized the concepts of length and area. Volume has an added dimension. How many dimensions does volume have? *(Write your answer on the response sheet.)*

(1)

To calculate the volume of a rectangular object we multiply the

(2)

times the

(3)

times the

(4)

The metric volume unit that is based on the decimetre is called a

(5)

What is the symbol for this unit?

(6)

How does it compare to a customary liquid quart?

(7)

The volume unit that is equal to a cubic centimetre is called a

(8)

and its abbreviation is

(9)

A teaspoon is approximately equal to

(10)

A tablespoon is approximately equal to

(11)

Our customary cup is approximately equal to

(12)

A pint is approximately equal to

(13)

(14)

## MASS AND WEIGHT

Weight is the amount of gravitational attraction of the earth on an object. Remember how the astronauts "bounced" and "floated" in space? The gravitational pull of the earth was too far away to have much effect on them. Therefore, they had little, if any, weight.

The astronauts continue to have mass in space. Their mass, or amount of matter, was the same in space as it was on earth.

Scientists find that it is important to distinguish between mass and weight. On earth the weight and mass of an object are similar, and the weight of an object changes proportionally with changes in its mass. Therefore, we can estimate the mass of an object by weighing it. In this course we will talk about an object's mass rather than its weight.

## KILOGRAM

In the last lesson we learned how the litre is related to the metre. The kilogram is also related to the litre and the metre. One litre of water has an approximate mass of 1 kilogram. Milk has a density that is similar to the density of water. Therefore, one litre of milk has a mass of approximately 1 kilogram. The mass varies with the density of the matter. (Density is defined as the mass per unit volume.) A litre of some materials does NOT have a mass of 1 kilogram. We can determine the approximate mass of other materials by weighing them on spring scales or balance beam scales.

The kilogram unit is symbolized by the letters kg. Like the other symbols we have previously studied, it is not capitalized, it does not have a period (except when it appears at the end of a sentence, as above), and an "s" is NOT added to indicate the plural.

The kilogram is approximately equal to 2,2 pounds. Half of a brick has a mass of approximately 2,2 pounds or one kilogram. (The decimal comma is being used in this lesson as it has in previous lessons.)

In review, one litre of water has an approximate mass of

(15)

The symbol for this metric unit (number 15 above) is

(16)

The equivalent of this unit in our customary system is

(17)

If possible, weigh yourself on a metric bathroom scales (See "Resources you may wish to acquire" on Study Guide). The school nurse or your doctor may have a metric scales because many of the medical institutions are converting to the metric system. Is the number of kilograms of your mass larger or smaller than the number of customary pounds?

(18)

Memorize the number of kilograms of your mass and use it as a reference point. It might also be helpful to know that a person who weighs 220 pounds has a mass of 100 kilograms, a person who weighs 165 pounds has a mass of 75 kilograms and a person who weighs 110 pounds has a mass of 50 kilograms.

There is a larger unit of metric mass called the metric tonne. It is used for large quantities of agricultural produce, minerals and so on. The metric tonne has a symbol of t and it is equivalent to 1 000 kilograms. We use the word "metric" before tonne to differentiate it from the unit of ton in our conventional system. A metric tonne has a mass equivalent to 2 205 pounds. The spelling on tonne is arbitrary and it may be written as ton. We will be consistent in the course and use metric tonne.

## GRAM

If you are used to cooking for one or two people, the idea of buying hamburger in kilograms may not seem practical to you. We need to be able to measure smaller amounts conveniently. Did you notice the prefix kilo- when you were reading about kilograms? A kilogram is 1000 grams or a gram is one-thousandth of a kilogram. A gram is small — it is approximately the weight of a paper clip or thumb tack. In many countries, grocery stores give prices per 100 grams. Thirty grams are the approximate equivalent of an ounce. Grams will be used instead of ounces, and sometimes, pounds. Grams may be used in recipes and they are presently being used in science and pharmaceutical areas.

Do you think the gram is related to the volume units? Yes, you are right! One millilitre of water weighs about 1 gram. Therefore, approximately how much does a teaspoon of water weigh?

(19)

Approximately how much does a tablespoon of water weigh?

(20)

The symbol for a gram is g and it is used in the same way as the other symbols we have learned.

At this time a decision has not been made about how ingredients will be measured in recipes after we convert to the metric system. I would like to have you try two ways of measuring before you make a decision. The recipes from the article in *Forecast For Home Economics* (See "Resources you may wish to explore" on Study Guide) will be helpful, and you will need a metric measuring cup and metric gram scale. Three gram scales are listed under "Resources you may wish to acquire" on the study guide, and your local stores will probably have several gram scales. If you do not wish to purchase a gram scale you may be able to borrow one.

Choose an ingredient from the recipes that is not a liquid (Example: quick oats in the meat loaf recipes).

First, measure the correct amount of the ingredient in your metric measuring cup. (In our example, this would be 240 millilitres of quick oats.)

Second, find the mass on the metric scale of the ingredient that you have put in the cup. Don't forget to subtract or compensate for the weight of the container. What is the mass of the ingredient?

(21)

Third, compare the mass number you obtained with the number suggested in the third recipe. (In our example this would be 72 grams of quick oats.) Did you get the amount specified in the third recipe?

(22)

Fourth, which method of measurement was easiest for you?

(23)

What were the advantages of this method?

(24)

Fifth, which system of measurement, volume or mass, do you think we should adopt?

(25)

Why?

(26)

As you are probably aware, some countries use the mass units in recipes and others use the volume units. It is important that you form your own opinion AFTER you have tried both methods. If you have strong feelings about the desirability of one system, communicate your opinion to others (See "Optional activities" on Study Guide).



One disadvantage of completing these lessons by yourself is that you do not know how other students react. I do not want to influence the decision that you made above. You have already written down your results. But I thought you might be curious about how others (graduate students) have responded to the above experiment. A large majority of the students said the system of weighing and using mass units was easier. They thought it was faster, more convenient, and more accurate. I was surprised! Most of us are not used to using a scale, a scale costs more than volume measuring equipment, and the scale takes up storage space. You may want to try this experiment with your students and friends. Encourage other home economists to form an opinion and communicate their opinion to people who will be involved in deciding what method of measuring we ultimately adopt. We must use our professional knowledge and let others know BEFORE the decisions are made. After the method has been decided, it will be too late.

Now, use your metric measuring cup and the scale to find the mass of 1 cup of a variety of foods. You might also want to use a tablespoon if your scale dial is divided into one gram divisions. You might measure the mass of flour, sugar, different kinds of cereals, milk, water, salt, and so on.

FOOD	VOLUME	MASS
(27)	(28)	(29)
(30)	(31)	(32)
(33)	(34)	(35)
(36)	(37)	(38)
(39)	(40)	(41)
(42)	(43)	(44)

The mass of similar amounts of different foods varies because the foods have different densities.

Try to estimate the metric mass of three items each day so your metric skill will continue to grow. It may help to keep a sheet of paper handy for writing the items down each day. The paper will remind you if you forget to practice estimating mass.

### MILLIGRAM

Remember the millilitre, which is equal to 0,001 litre? There is also a milligram which is equal to 0,001 gram. This unit is tiny. It is approximately the mass of a grain of salt. The milligram is useful when working with small amounts of nutrients. It is also used in pharmacy. The symbol for this unit is mg and it is used in the same way as the other symbols we have learned.

### REVIEW

UNIT	SYMBOL	RELATIONSHIP OF UNITS
milligram	mg	1 mg = 0,001 g
gram	g	1 g = 1 000 mg
kilogram	kg	1 kg = 1 000 g
metric tonne	t	1 t = 1 000 kg

The smallest unit of mass which we are likely to use is the

(45) .

It is equivalent to

(46) .

It is symbolized by

(47)

Instead of ounces we will use

(48)

How is this unit related to the volume units?

(49)

The symbol for this unit is

(50)

One litre of water has an approximate mass of

(51)

This unit is approximately equal to

(52)

in our customary system.

The symbol for this metric unit is

(53)

Cups of various kinds of foods have different masses because their densities vary. The mass of an object does not change but its weight varies with the gravitational pull.

= = = = = = = = = =

### POST TEST

*Write the letter indicating the correct answer for each statement, without looking back at your lesson, on the response sheet. The answer sheet does not include the answers for these questions.*

1. Mass is
  - a. weight
  - b. the force of the earth's gravitational pull on an object
  - c. a standard unit of weight
  - d. the amount of matter in an object
2. What is the approximate mass of one litre of water?
  - a. 1 gram
  - b. 2,2 grams
  - c. 500 grams
  - d. 1 kilogram
3. One kilogram is the equivalent of
  - a. five pounds
  - b. 2,2 lbs.
  - c. 1 pound
  - d. 18 ounces
4. A pound of sugar has the approximate mass of
  - a. 1 kilogram
  - b. 50 grams
  - c. 400 grams
  - d. 250 grams

5. A woman who weighs 110 pounds would have a mass of approximately
  - a. 25 kg
  - b. 50 kg
  - c. 100 kg
  - d. 250 kg
6. One gram is approximately
  - a. 1/30 lb.
  - b. 1/30 kg
  - c. 1/30 oz.
  - d. 1/100 kg
7. One milligram is
  - a. 0,001 gram
  - b. the mass of 1 ml of water
  - c. 0,0001 kg
  - d. the approximate mass of a thumb tack
8. Instead of ounces we will use the metric units of
  - a. millilitres
  - b. milligrams
  - c. grams
  - d. centimetres
9. The symbol for gram is
  - a. g
  - b. g.
  - c. gm
  - d. G
10. Write a short paragraph about the difference between weight and mass

Don't forget to write your answers on the response sheet under "Post Test."

#### ANSWER SHEET

- |                                 |   |
|---------------------------------|---|
| 1. 3                            | 19. 5 g   |
| 2. length, width or height      | 20. 15 g  |
| 3. length, width or height      | 21. ---   |
| 4. length, width or height      | 22. ---   |
| 5. litre                        | 23. ---   |
| 6. l                            | 24. ---   |
| 7. slightly larger              | 25. ---   |
| 8. millilitre                   | 26. ---   |
| 9. cm <sup>3</sup> or ml        | 27. — 44. You are on your own.                  |
| 10. 5 ml                        | 45. milligram                                   |
| 11. 15 ml                       | 46. 0,001 gram or approximately 1 grain of salt |
| 12. 250 ml                      | 47. mg  |
| 13. 500 ml                      | 48. grams                                       |
| 14. 1 000 ml or cm <sup>3</sup> | 49. 1 g = 1 ml of water                         |
| 15. 1 kilogram                  | 50. g   |
| 16. kg                          | 51. 1 kg  |
| 17. 2,2 pounds                  | 52. 2,2 pounds                                  |
| 18. smaller                     | 53. kg  |



## LESSON SIX TEMPERATURE Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your response sheets.

\_\_\_\_\_ Pretest

### *Objectives for the lesson*

The student will:

- \_\_\_\_\_ (1) become familiar with appropriate points on a metric thermometer.
- \_\_\_\_\_ (2) acquire and use a metric thermometer.
- \_\_\_\_\_ (3) estimate temperature in metric units.
- \_\_\_\_\_ (4) review the prefixes and how they affect decimalization.
- \_\_\_\_\_ (5) be aware of how the units studied fit into the SI.

### *Materials needed*

\_\_\_\_\_ Metric thermometer

Some of the optional activities require additional materials.

### *Resources you may wish to acquire (Optional)*

NOTE: Before purchasing new thermometers, check to see if your present thermometers have a centigrade scale. The centigrade scale is the same as the Celsius scale.

- \_\_\_\_\_ Thermometer, Celsius and Fahrenheit, range:  $-30^{\circ}$  to  $50^{\circ}\text{C}$  in  $2^{\circ}$  divisions and  $-20^{\circ}$  to  $120^{\circ}\text{F}$  in  $2^{\circ}$  divisions, 125 mm glass thermometer mounted on a plastic card 38 x 150 mm, M5679 (Package of 15, \$3.80) from:  
Sargent-Welch Scientific Company  
7300 North Linder Avenue  
Skokie, IL 60076
- \_\_\_\_\_ Celsius Lab Thermometer, etched stem, range:  $-20^{\circ}$  to  $100^{\circ}\text{C}$ , No. 5416 (\$2.75) from:  
Ideal School Supply Company  
11000 S. Laverne Avenue  
Oak Lawn, IL 60453
- \_\_\_\_\_ Cookery Thermometer, stainless steel scale and fittings, markings etched into the metal, range:  $20^{\circ}$  to  $260^{\circ}\text{C}$  with readings for chips, caramel, jam, etc.; 88124 (\$11.50) from:  
Dick Blick  
P.O. Box 1267  
Galesburg, IL 61401
- \_\_\_\_\_ Fridge/Freezer Thermometer, graduated to  $-30^{\circ}\text{C}$ , 88233 (\$3.90) from:  
Dick Blick  
P.O. Box 1267  
Galesburg, IL 61401
- \_\_\_\_\_ Ovenmeter, range:  $0^{\circ}$  to  $310^{\circ}$ , 88232 (\$10.70) from:  
Dick Blick  
P.O. Box 1267  
Galesburg, IL 61401

- \_\_\_\_\_ Clinical Thermometer, for measuring body temperature, calibrations above normal shown in red, manufactured to B.S. 691, 88206 (\$2.90) from:  
Dick Blick  
P.O. Box 1267  
Galesburg, IL 61401

*Resources you may wish to explore (Optional)*

- \_\_\_\_\_ *All You Will Need to Know About Metric (For Your Everyday Life)*, chart or flyer which may be reproduced, from:  
Metric Information Office  
National Bureau of Standards  
Washington, D.C. 20234
- \_\_\_\_\_ Barbrow, Louis E. *What About Metric?* booklet, stock number 0303-01191 (80¢) from:  
Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402

*Activities*

- \_\_\_\_\_ Reviewing information presented in lesson five
- \_\_\_\_\_ Becoming familiar with some points on the metric thermometer
- \_\_\_\_\_ Acquiring a metric thermometer
- \_\_\_\_\_ Measuring temperatures on the metric scale
- \_\_\_\_\_ Estimating temperature in metric units
- \_\_\_\_\_ Reviewing the prefixes and practicing converting from one to another
- \_\_\_\_\_ Reading about SI
- \_\_\_\_\_ Completing the response sheets and returning them to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

*Evidence of learnings*

- \_\_\_\_\_ Completing the objectives
- \_\_\_\_\_ Having a tool for measuring temperature in metric units
- \_\_\_\_\_ Completing and returning the response sheets
- \_\_\_\_\_ Taking the post test

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. The student who is not familiar with the metric system will probably finish this lesson in eight hours or less. The student with a knowledge of the metric system will be able to complete the lesson in a reduced amount of time.

*Optional activities*

- \_\_\_\_\_ Measure the outdoor temperature daily on a metric scale. Include the results in class announcements. Ask to have a metric weather announcement added to the school announcements or post a written announcement of the daily temperature in a prominent spot.
- \_\_\_\_\_ To develop metric estimation skills and awareness in your students, conduct a contest to guess the correct temperature in metric units.
- \_\_\_\_\_ Design dials for the ranges, fry pans, and other heating appliances that will indicate customary and metric temperatures.

\_\_\_\_\_ Look at all of the thermometers you now have (indoor, outdoor, clinical, candy, meat, oven, freezer, lab and so on) and determine what temperature scale each uses. Develop a metric scale for those thermometers that have only the Fahrenheit scale. It will be possible to attach the metric scale to some thermometers such as the indoor type. For others, such as the candy thermometer, the scale can be put on a card and attached to the inside of the cupboard door.

\_\_\_\_\_ Contact your local television and radio stations about including the temperature in metric units on the weather reports if they are not doing it at the present time.

### PRETEST LESSON SIX

The following questions will acquaint you with the material presented in lesson six. You are not expected to know the answers now and this test will NOT be used in your evaluation. The questions will help to introduce you to the concepts and help you recognize the important ideas when they appear in the lesson.

*Write the letter indicating the correct answer for each statement on the response sheet. You will find clues to the answers as you work the lesson.*

1. Which of the following names will be used for ordinary measurement of temperature in the metric system?
  - a. Kelvin
  - b. Fahrenheit
  - c. Centigrade
  - d. Celsius
2. Which of the following names will be used in temperature measurement by physicists and other scientists when they adopt the metric system?
  - a. Kelvin
  - b. Fahrenheit
  - c. Centigrade
  - d. Celsius
3. If we were measuring the melting point of ice on a "metric" scale, what would the reading be?
  - a. 32°F
  - b. 0°C
  - c. 250°K
  - d. 32°C
4. A person's normal body temperature on the metric scale is approximately
  - a. 98.6°F
  - b. 373°K
  - c. 37°C
  - d. 62°C
5. A comfortable room temperature is approximately
  - a. 90°F
  - b. 373°K
  - c. 32°C
  - d. 23°C
6. If we were measuring the boiling point of water on the metric scale, what would the reading be on our thermometer?
  - a. 212°F
  - b. 100°C
  - c. 299°K
  - d. 212°C



7. The term 25 000 millilitres is equivalent to
  - a. 25 ℓ
  - b. 2,5 ℓ
  - c. 250 cm<sup>3</sup>
  - d. 2,5 dm<sup>3</sup>
8. The term 3,5 kg is equivalent to
  - a. 3 500 g
  - b. 350 000 mg
  - c. 0,003 5 g
  - d. 3 500,000 mg
9. Which of the following units would be used to measure energy in SI?
  - a. calorie
  - b. kilowatt-hour
  - c. joule
  - d. kilogram-metre
10. Which of the following units is NOT a base unit in the SI?
  - a. second
  - b. metre
  - c. litre
  - d. kilogram

## RESPONSE SHEET: LESSON SIX

The following lesson contains a number of questions followed by blanks with numbers. The answers are to be written on **THIS** sheet by the corresponding number. These response sheets are to be returned to your instructor. It is suggested that you keep a copy of these sheets since the University cannot assume responsibility for assignments lost in the mail. If you do not wish to remove these pages from the journal, they can be duplicated on a copy machine.

Name		
Street Address		
City	State	Zip Code

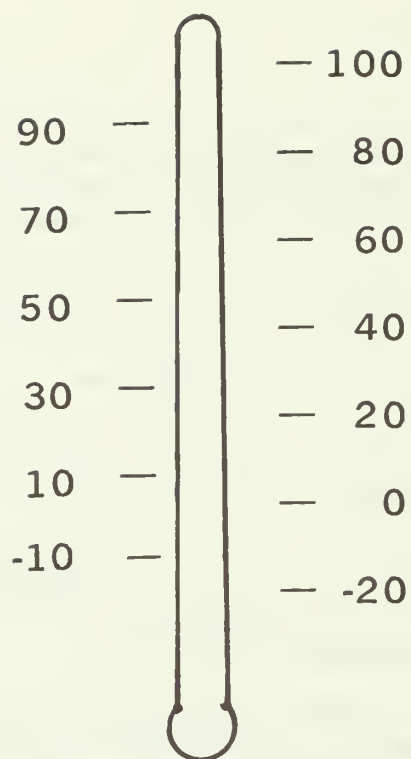
Date \_\_\_\_\_  
Votec x399 B

*Print your name and address within the box indicated above.*

The post test will be evaluated but the answers to the pretest and questions in the lesson will NOT be used to determine your final grade. The instructor uses the response sheet to find concepts that may not have been clear or items you may have misunderstood or are having trouble learning. You will find an answer sheet at the end of the lesson which will provide immediate feedback for many of the questions. It does not contain the answers for the pretest or post test. Please add additional comments if you desire.

*Write your answers below.*

PRETEST	LESSON SIX	
1. _____	1. _____	11. _____
2. _____	2. _____	12. _____
3. _____	3. _____	13. _____
4. _____	4. _____	14. _____
5. _____	5. _____	15. _____
6. _____	6. _____	16. _____
7. _____	7. _____	17. _____
8. _____	8. _____	18. _____
9. _____	9. _____	19. _____
10. _____	10. _____	20. _____



#### POST TEST

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_  
9. \_\_\_\_\_ 10. \_\_\_\_\_

Please add additional comments if you desire.

Return the two (2) response sheets to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801. Include your return address and place the correct amount of postage on the envelope. Congratulations on completing six of the eight lessons! The last two lessons will be in issue number five of *Illinois Teacher of Home Economics*.



## LESSON SIX

This lesson will include the following topics:

- I Review of mass
- II Temperature
- III Metric Prefixes
- IV SI

### REVIEW OF MASS

In lesson five we studied mass. The mass of an object remains constant but its weight varies with the amount of gravitational attraction on the object. Identical volumes of different substances have different masses because their densities vary.

One litre of water has an approximate mass of

\_\_\_\_\_ (1) \_\_\_\_\_ .

*(Write your answer on the response sheet.)*

This unit is approximately equal to

\_\_\_\_\_ (2) \_\_\_\_\_ in our customary system.

The symbol for this metric unit is

\_\_\_\_\_ (3) \_\_\_\_\_ .

To take the place of ounces in the metric system we will use

\_\_\_\_\_ (4) \_\_\_\_\_ .

How is this unit (number 4 above) related to the volume units?

\_\_\_\_\_ (5) \_\_\_\_\_

The symbol for this unit (number 4 above) is

\_\_\_\_\_ (6) \_\_\_\_\_ .

The smallest unit of mass which we are likely to use in the metric system is the

\_\_\_\_\_ (7) \_\_\_\_\_ .

It is equivalent to

\_\_\_\_\_ (8) \_\_\_\_\_ .

Its symbol is

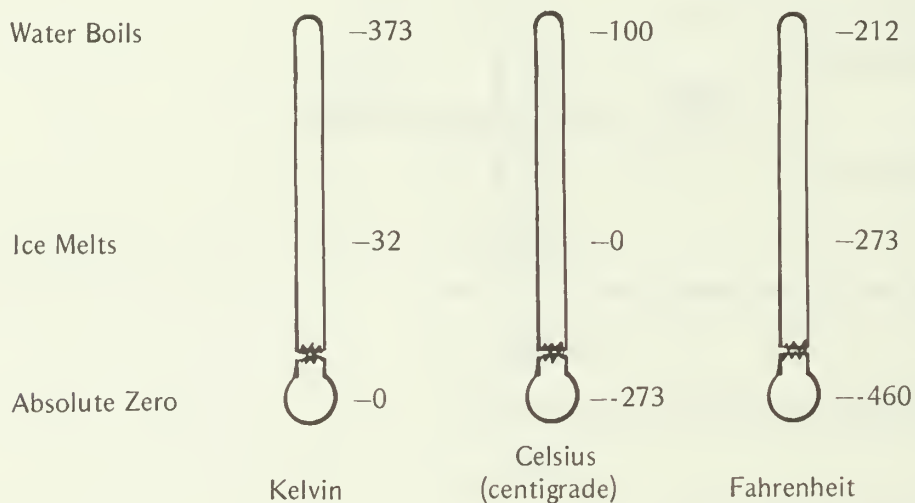
\_\_\_\_\_ (9) \_\_\_\_\_ .

### TEMPERATURE

The pretest mentioned four kinds of temperature scales: Kelvin, Fahrenheit, centigrade and Celsius. At the present time we frequently use the Fahrenheit temperature scale. Weather reports, oven temperatures and water temperatures are a few of the places where the temperature is usually stated in Fahrenheit degrees.

You may have used a lab thermometer that had a centigrade scale. The prefix centi- indicates that there are one hundred equal degrees between the melting point of ice and the boiling point of water. Celsius is the name of the man who suggested the centigrade scale. It has now been decided that this scale will officially be called the Celsius scale after its originator. Thus, the Celsius and centigrade scale refer to the same thermometer scale, but we will call it Celsius. It is pronounced sel'si us and it is symbolized with a *capital* C preceded by the symbol for degrees. Unlike the other symbols we have learned, this one is capitalized. The Celsius scale will be utilized by the average consumer when we change to metric units.

The Kelvin scale is used by scientists who are working with the metric system. The Kelvin scale is appropriate for scientific work because it has an absolute zero. There is no heat or thermal energy below absolute zero. Like the Celsius scale, there are one-hundred degrees between the melting point of ice and the boiling point of water. On the Kelvin scale ice melts at  $273^{\circ}\text{K}$  and water boils at  $373^{\circ}\text{K}$ . Similarly, on the Celsius scale ice melts at  $0^{\circ}\text{C}$  and water boils at  $100^{\circ}\text{C}$ . Thus, a change of one degree on the Kelvin scale would indicate the same heat change as a one degree change on the Celsius scale. (In comparison, a temperature change of one degree on the Celsius scale is *approximately* the same as a change of two degrees on the Fahrenheit scale.) The following drawings will help to illustrate the differences between the temperature scales.



The easiest way to learn the Celsius temperature scale is through experience. The arithmetic conversions from the Fahrenheit scale to Celsius are a little complex. (Prefixes have no logical place in temperature measurements.) Therefore, we will identify some convenient points on the Celsius scale and help you associate them with things that happen or feelings you have at those temperatures.

Let's start at  $0^{\circ}\text{C}$ . This is the temperature at which ice melts. We can have a snow or ice storm at  $0^{\circ}\text{C}$  or below and the results will stay on the ground.

The normal body temperature is  $37^{\circ}\text{C}$ . This indicates that as the outdoor temperature approaches  $40^{\circ}\text{C}$  it is going to be hot. Forty degrees Celsius is equal to  $104^{\circ}\text{F}$ . How do you feel when it gets that hot outside?

At  $100^{\circ}\text{C}$  water boils. This is another convenient reference point. Of course we are concerned about temperatures higher than this in appliances that provide heat. And we need to know more about points between  $40^{\circ}\text{C}$  and  $0^{\circ}\text{C}$  as well as temperatures below zero. But first, let's review.

Which temperature scale will scientists be using after they convert to the metric system?

(10)

Which temperature scale will consumers be using when we convert to the metric system?

(11)

What is the symbol for this scale?

(12)

What is the melting point of ice on this scale?

(13)

What is normal body temperature on this scale?

(14)

What is the boiling point of water on this scale?

(15)

On the second response sheet you will find a drawing of a Celsius thermometer. Using your Celsius thermometer (See "Resources you may wish to acquire" on Study Guide or borrow one) measure the temperature of the room you are in. *Write the number on the thermometer scale in the appropriate space and next to the number write "room temperature."* Now take the thermometer outside and wait a few minutes for it to adjust to the new temperature. *Note the temperature, write it on the scale, label it "outdoor temperature" and also write in the date and time. Similarly, place the thermometer in the refrigerator, wait, read the temperature, write it on the scale, and label it "refrigerator temperature."*

We have already mentioned a 40°C day. At 30°C it will be quite warm, equal to 86°F, and probably a day when many people would like to go to the beach.

You can probably draw some conclusions about a 20°C day from your measurement of the room temperature. What would it be like outside when the temperature measures 20°C?

(16)

When the thermometer reads 10°C, I would think it was "cool." Some people would call it a warm winter day. It would be equal to 50°F.

When it gets down below zero degrees Celsius, the people who like to ski are happy. The snow will stay on the ground and it is cold, as far as I am concerned! Very few of us will experience temperatures of minus forty degrees Celsius in the continental United States.

*Choose four points on the thermometer drawing (response sheet), make four drawings indicating how a person might feel outdoors when the temperature was at these points, and draw dotted lines from the four points on the thermometer to the appropriate drawings. If you do not like to draw, copy a drawing from another source or draw stick figures and convey your message with a beach umbrella, sun, mittens, and so on. While you are doing this think about how you would feel at the various temperatures on the Celsius scale. Try to make these temperatures serve as reference points for you.*

It is important that you continue to estimate temperatures on the metric scale and continue measuring temperatures in metric units, if you wish to continue developing your metric skills. Try to estimate different temperatures in metric units and then check your estimate with your thermometer.

As home economists we use temperature in a number of ways. Some of us are concerned about the temperature of the water when it reaches the washing machine or dishwasher. Others are concerned with the temperature of appliances used to care for fibers and fabrics. Most of us are concerned with the temperatures in equipment and appliances used to heat and cool foods. Some of us are particularly concerned with people's body temperatures and environment temperatures. A number of conversion devices are available to help convert existing temperature scales to metric scales. "Resources you may wish to acquire" suggests a number of thermometers that may be purchased.

Following is a conversion table for oven temperatures that will give you an approximate idea of how the temperature scales compare. These are not actual conversions but dial markings that are being used in England.

Fahrenheit		Celsius
300	—	150
325	—	170
350	—	180
375	—	190
400	—	200
425	—	220



As you compare the two scales, are the Celsius degrees larger or smaller than the Fahrenheit degrees?

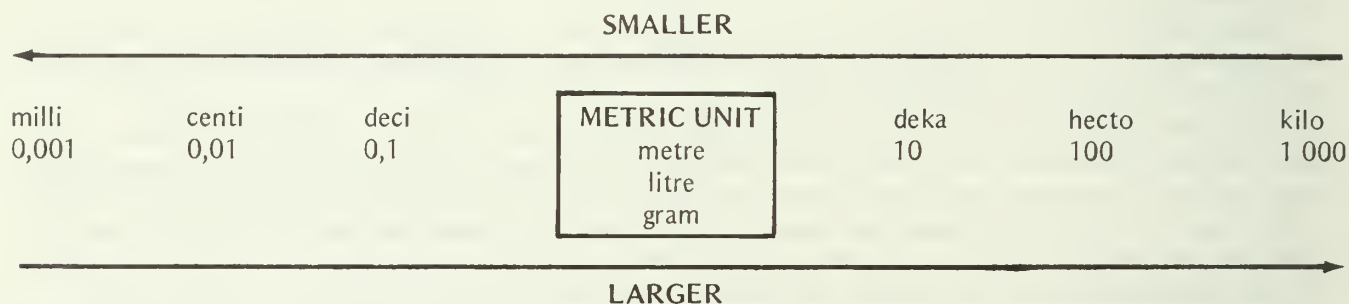
(17)

## METRIC PREFIXES

The prefixes we used most frequently were kilo-, centi-, and milli-. Occasionally we utilized other prefixes. The following table shows the prefixes that could be incorporated. This is not a list to be memorized but a table to illustrate the system.

Prefix	Multiplication factor
mega-	1 000 000
kilo-	1 000
hecto-	100
deka-	10
deci-	0,1
centi-	0,01
milli-	0,001
micro-	0,000 001

The table above shows how the decimal comma moves with the prefix. In the pretest you may have noticed some questions related to this concept. It is not important that you spend hours practicing the conversion of one unit to another by changing the prefix and moving the decimal comma. It is important that you understand the basic concept. Perhaps the following illustration will help to explain how the prefix and placement of the decimal comma affect the metric unit.



To convert from a *smaller* unit to a *larger* unit, for a given measurement, divide or move the decimal comma to the left. To convert from a *larger* unit to a *smaller* unit, multiply or move the decimal comma to the right. Example: to determine the number of kilometres in 750,5 metres, divide by 1 000 or move the decimal to the left three places. The answer is 0,750 5 km. (There is a metric slide chart in the Penney materials which also illustrates this concept, see lesson one.)

Let's try a few conversions to see if you grasp the concept.

$$650 \text{ metres} = \underline{\quad (18) \quad} \text{ kilometres}$$

$$23 \text{ centimetres} = \underline{\quad (19) \quad} \text{ millimetres}$$

$$3,1 \text{ milligrams} = \underline{\quad (20) \quad} \text{ grams}$$

## SI

In lesson one you also read about SI. SI is the symbol for Le Système International d'Unités or, as it is commonly called, the International System of Units.

There are three classes of units in SI; base units, supplementary units and derived units. The base units are seven in number and they are used to indicate the quantities of length, mass, time, electric current, temperature, amount of substance, and luminous intensity. They are illustrated on the following chart.

Quantity	Name of Base Unit
length	metre
mass	kilogram
time	second
electric current	ampere
temperature	Kelvin
amount of substance	mole
luminous intensity	candela

We have studied about metres and kilograms. (Note that kilogram is the only base unit containing a prefix.) We are already familiar with the second. Some of us use and are familiar with the ampere, while others will not be concerned with its use. We have talked about the Kelvin unit but we learned more about the Celsius scale. The Celsius scale will also be acceptable in the metric system and the unit "degree Celsius" is equal to the unit "degree Kelvin." Few home economists will need to become familiar with the mole. Those working with luminous intensity will be using the candela.

The second class of units in the International System is supplementary units. There are two supplementary units and they are used to measure plane and solid angles. Very few of us will be concerned with these units.

The third class, derived units, represents compound units formed by the combination of base units, supplementary units, or other derived units. It is here that we find the square metre, cubic metre, lumen, joule and so on. It is interesting to note that joules measure quantities of energy, work and heat and will be used instead of calories. The litre, tonne, minute, hour and day are acceptable units but they are not part of SI.

The SI system was adopted by the Eleventh General Conference on Weights and Measures in October 1960. Before then, there were a number of different metric systems in use. The conference attempted to provide a common, international measurement language. As a result, they reduced the number of units used to measure similar quantities.

### POST TEST

Write the letter indicating the correct answer for each statement, without looking back at your lesson, on the response sheet. The answer sheet does not include the answers for these questions.

- Which of the following names will be used for ordinary measurement of temperature in the metric system?
  - Kelvin
  - Fahrenheit
  - Centigrade
  - Celsius
- Which of the following names will be used in temperature measurement by physicists and other scientists when they adopt the metric system?
  - Kelvin
  - Fahrenheit
  - Centigrade
  - Celsius
- If we were measuring the melting point of ice on a "metric" scale, what would the reading be?
  - 32°F
  - 0°C
  - 250°K
  - 32°C
- A person's normal body temperature on the metric scale is approximately
  - 98.6°F
  - 373°K
  - 37°C
  - 62°C

5. A comfortable room temperature is approximately
  - a.  $80^{\circ}\text{F}$
  - b.  $373^{\circ}\text{K}$
  - c.  $32^{\circ}\text{C}$
  - d.  $23^{\circ}\text{C}$
6. A  $400^{\circ}\text{F}$  setting on an oven dial is equivalent to
  - a.  $150^{\circ}\text{C}$
  - b.  $200^{\circ}\text{C}$
  - c.  $220^{\circ}\text{C}$
  - d.  $300^{\circ}\text{C}$
7. The term 3,750 mg is equivalent to
  - a. 0,003 750 g
  - b. 0,375 g
  - c. 3 750 g
  - d. 0,037 50 g
8. The term 2 552 km is equivalent to
  - a. 2,552 m
  - b. 255 200 m
  - c. 25 520 000 mm
  - d. 255 200 000 cm
9. Which of the following units would be used to measure energy in SI?
  - a. calorie
  - b. kilowatt-hour
  - c. joule
  - d. kilogram-metre
10. Which of the following units is NOT a base unit in the SI?
  - a. second
  - b. metre
  - c. litre
  - d. kilogram

Don't forget to write your answers on the response sheets under "Post Test." When you have completed this and sent the response sheets to the instructor, you have completed six of the eight lessons. Congratulations!

#### ANSWER SHEET

1. 1 kilogram
2. 2,2 pounds
3. kg
4. grams
5. 1 ml = 1 g water
6. g
7. milligram
8. 0,001 gram or approximately 1 grain of salt
9. mg
10. Kelvin
11. Celsius
12.  $^{\circ}\text{C}$
13.  $0^{\circ}\text{C}$
14.  $37^{\circ}\text{C}$
15.  $100^{\circ}\text{C}$
16. —
17. larger
18. 0,650
19. 230
20. 0,003 1











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# ILLINOIS TEACHER OF HOME ECONOMICS

## NEW FACES AND PLACES FOR HOME ECONOMICS HUMAN ROLES: EXAMINING CHOICES THROUGH EDUCATION

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## FOREWORD

Congratulations to you from those of us at **ILLINOIS TEACHER**! The accomplishments of the school year need to be acknowledged as you prepare for summer activities and look ahead to fall. We have enjoyed thinking and working to bring you ideas and materials which we hope have helped you to make this your best teaching year ever. With your support, we will continue our efforts in the future.

This issue of **ILLINOIS TEACHER** completes our theme for 1974-75, New Faces and Places for Home Economics. We hope that this issue's focus will help you in clarifying your role as a home economics educator, looking in new places and working with new faces. We have chosen the title, **HUMAN ROLES: EXAMINING CHOICES THROUGH EDUCATION**.

The first articles provide much valuable insight and raise some thought-provoking issues for us as home economists to consider. One question that is raised when mothers work is, "What about the children?" Beliefs and opinions abound but I felt that teachers needed a more solid foundation when helping teen-agers to make their own decisions. Therefore, I asked Sam Clark to tell us what the research has shown. His article, "Maternal Employment," answers our need well in a very readable fashion.

Eleanor Kohlmann, in "Helping Young Men Prepare for Changing Roles," shares with us some valuable insights into the psyche of the young males who are entering home economics classes in increasing numbers. We have always focused our teaching toward the needs of individuals. With the current emphasis on "equal opportunity," however, we need to be sure we aren't interpreting this as "equal needs."

"Myths That Tell Us Who We Are," by Mary Ann Lundy, may be an article you will wish to make available for students to read. Mary Ann, in her work with young people and in her preparations for ordination into the ministry of the Presbyterian Church, has thought deeply about women in today's society and myths that may be hampering their fullest contribution.

One encouragement for those coping with conflict is to know they are not alone. Ruth Harris has been very courageous in sharing with us the conflict and the process of resolution which she and her family have experienced as she "does her thing." Read "Coping with Role Conflict: My Story."

In teaching consumer education we often focus on financial planning for the "continuous family." In Martha Patton's article, "Telling Virginia to Earn Her Own Way," a rationale for an added focus is provided.

Legislators are people! Adeline Geo-Karis shares her personal and her professional thinking in relation to the ERA. Will its passage be any more a reality by the time you read this?

The second group of articles provide specific suggestions and/or materials for use in the classroom. We encourage you to try these out with your students and to let us know of your successes and failures. The authors would appreciate this feedback.

The third section of this issue contains some excellent things from the Women's Bureau, U.S. Department of Labor. The information provided can be most helpful to you and your students in digging deeper into the reality of the world of work. We also hope this section will be a reminder to you that there are, and will continue to be, many good materials available from this and other government sources for teaching home economics.

A bonus supplement to this issue is the section "Introducing the Metric System into the Home Economics Classroom." These materials were developed by Elaine Parsons and can provide more ideas as the United States goes steadily "metric" and as we as educators assume our responsibility to help students learn the metric system. The addition of this supplement was stimulated by the response to Judy Oppert's series "The Home Economics Teacher and Metrics." The final lessons of this series, 7 and 8, appear at the end of this issue.

We have chosen as our theme for 1975-76, **QUALITY OF LIFE**, and several issues are well under way. During the year we hope to (1) explore the meaning of "quality of life," (2) examine the contributions that are being made by home economists to improving the quality of life, and (3) provide you with materials, ideas, and stimulation so that you can help students improve their quality of life. Subscription information can be found on the inside back cover.

Judy Brun

*Judy Brun*

Editor for this issue



# MATERNAL EMPLOYMENT

Sam Clark, Professor and Chairman  
*Department of Child Development*  
*Iowa State University*



Most parents throughout history have had to work at something to support themselves and their family. What they have worked at and when they did it has very much been a subject for public opinion. But public judgments about work can change. For instance, they changed during and following the industrial revolution. The industrialization resulting from that revolution served to pull parents and children apart from what was home-related employment to what became poor and crowded factory conditions. During this early history of industrialization working mothers were associated with poor home conditions, general neglect of children, and a high child mortality rate. World War II brought a re-emphasis on factory work for women, including mothers. This spawned an additional opinion about employed mothers in which such mothers were associated with delinquency of their children. Thus past public opinion has pretty much been against mothers working outside the home.<sup>1</sup>

## WHAT IS THE EMPLOYED MOTHER LIKE?

### Number of Employed Mothers

Despite remains of negative public opinion toward maternal employment (mothers working outside the home) there was an approximate 80% increase in numbers of U.S. employed mothers from 1948 to 1958. Of the nation's mothers with children under 18 years of age, 30% were employed by 1958.<sup>2</sup> The number and percent of employed women has increased since then. Thus, in 1960, 19% of mothers with preschool children were employed compared to 30% in 1972. Similarly 40% of mothers with school-aged children were employed in 1960 compared with 50% in 1972.<sup>3</sup>

### Research Problems

Complexities of sampling, design and measurement

make the study of possible maternal employment effects on children fairly difficult. Particular problems in research done on this topic so far include (1) poor specification of length and condition of employment; (2) inadequate definition and assessment of child behavior (most assessment has involved a self-report by either the mother or the child); and (3) loosely controlled research populations consisting, in some studies, of "problem families" and of widely differing cultural groups.<sup>4</sup> Research results, therefore, are to be interpreted within limitations. Also noteworthy is the need for more research in several areas related to maternal employment. These include (1) effects of father presence on children; (2) effects of maternal employment on infants; (3) effects of maternal employment on the husband-wife relationship; and (4) kinds of substitute care provided for children when the mother is employed.<sup>5</sup>

### Characteristics of Employed Mothers

Mothers may seek employment for many reasons. Among those frequently mentioned are (1) providing or supplementing family income; (2) achieving a measure of self-satisfaction; and (3) escaping from a perceived boredom in household tasks. The latter two non-economic motives more frequently apply to women whose husbands have a college graduate education.<sup>6</sup>

In the recent past employed women have tended to have fewer children than their full-time homemaking counterparts.<sup>7</sup> If we accept research findings, then this tendency has important implications. For instance, employed women with small families, compared to full-time homemakers with small families, have been found to be as well or better adjusted to their children. In large families (four or more children) employed mothers seem to have some difficulty in balancing their work demands with their household



demands. However, family adjustment and adaptation to this situation usually become more functional if the mother retains the same job for some time.<sup>8</sup>

Whether a mother likes or dislikes what she is doing appears to have significant implications for quality mother-child relationships. Research literature states repeatedly that mothers who like what they are doing, whether they are employed or not, have fewer problems in child-rearing. Mothers who like their work have been found to show greater affection to their children than mothers who dislike their work. Further, it seems clear that children of dissatisfied full-time homemaking mothers show more problem behaviors than do children of satisfied employed mothers.<sup>9</sup>

When comparisons of child-rearing attitudes between employed versus homemaking mothers are made within similar cultural groups, there are no significant differences.

## DOES MOTHER EMPLOYMENT CHANGE THE FAMILY?

### Husband-Wife Relationships

Few studies are available on possible effects which maternal employment may have on husband-wife relationships. These relationships are important to consider if both parents live together, since what occurs within these relationships largely determines what can occur in father-child and mother-child relationships. Based on what research findings there are it appears that maternal employment, in and of itself, does not harm husband-wife relationships.<sup>10</sup> Indeed, one researcher states that if a mother sees challenge in her employment, her work may enrich the total marriage relationship.<sup>11</sup> Mothers who view themselves as highly committed to and challenged by their work do not see their employment as a disadvantage.<sup>12</sup> As might be expected, however, tensions to the marital relationship may occur when either the husband or wife become so highly involved in a job that family responsibilities are excluded.<sup>13</sup>

### Task-Sharing Behaviors

Employed mothers participate less and their husbands more in household tasks when they are compared to economically similar families in which there is a full-time homemaker.<sup>14</sup> The degree to which the employed woman's husband participates with household tasks seems to be related to how much he accepts his wife's employment. That is, if the husband believes his wife's employment to be contributing to the family and to her, he likely will help more around the house. If he resents it he probably will help less, if at all.<sup>15</sup>

As might be expected, research literature shows

that employed mothers spend less time than full-time homemakers on leisure-time activities, community involvement and neighborhood visiting. When employed mothers do have extra time there is evidence that they often prefer to spend it with their children as a sort of compensation for time away at work.<sup>16</sup>

Children of employed mothers usually are involved with household tasks to a greater degree than are children of full-time homemakers. Some evidence exists that older daughters may resent this involvement if they are expected by their employed mother to shoulder heavy responsibility for operating the household.<sup>17</sup> But if task involvement is kept moderate and shared across all family members it would appear to have considerable benefit in providing children with adult models and meaningful opportunities for learning responsibility.

### Children's Adjustment

*Delinquency.* The idea that maternal employment causes child delinquency is likely a carry over from the past. The idea is not supported by research when the variables of broken homes, poverty, discrimination and marital conflict are considered.<sup>18</sup> In an early study of delinquency among girls in the Chicago area, rate of delinquency among girls of employed and homemaking mothers was about the same if the girls were from homes that were not broken.<sup>19</sup> Similar findings are reported in much more recent studies with girls<sup>20</sup> and with boys<sup>21</sup>.

There is some evidence that irregular maternal employment relates significantly to delinquency in boys. A mother is considered irregularly employed if she holds numerous and different jobs during a short period of time. The pattern of irregularity itself may indicate a behavioral problem within the mother, or perhaps within her husband if he is present.<sup>22</sup> Thus irregular employment likely is a symptom of the problem rather than the problem itself. In any case, it appears that children frequently adopt the behavioral problem and adapt it to fit their own needs. It may be expressed as delinquent behavior.

*Achievement.* Do children whose mothers are employed get lower grades in school? This is an often asked question and has prompted a number of researchers to study grades earned at several age levels by children of employed mothers compared to children of full-time homemakers. The resulting evidence presents a clear picture. Maternal employment does not affect academic grades earned. Rather, it is the quality of interaction between parent and child that appears useful as a future area of study in regard to achievement, and not the employment status of the mother.<sup>23</sup>

*Other behavior.* During the past 25 years there

have been many maternal employment studies as to possible behavioral effects mother's employment may have on children. One of the weaknesses of these studies is the grossly defined and/or poorly measured "behavior" component. In addition, the studies are not without conflicting results. For instance, one study<sup>24</sup> reports that maternal employment is related to poorer personality adjustment of sons and another<sup>25</sup> reports that such employment is related to better personality adjustment. But the striking thing from this literature is that maternal employment is reported in an overwhelming majority of studies to have almost no influence, by itself, on children's behavior. That is, children whose mothers work do not behave appreciably different from children whose mothers are full-time homemakers.<sup>26</sup> That this finding is stated so consistently in so many different studies lends it strength.

Children of employed versus full-time homemaking mothers have been compared on possible feeding problems, on incidence of bed wetting, and on degree of aggression. The comparisons show no great differences.<sup>27</sup> Behavior has been studied for carefully selected groups of preschool children who differ mainly in that half have employed mothers and half have full-time homemaking mothers. No appreciable differences on the behavioral measures are reported.<sup>28</sup> Similar studies have been conducted with kindergarten children,<sup>29</sup> elementary-aged children,<sup>30</sup> and high school children.<sup>31</sup> No major behavioral differences are reported.

Children have been asked to rate how they perceive their mother's behaviors toward them. When ratings by children having an employed mother are compared to those of children having a full-time homemaker mother, no significant differences are found.<sup>32</sup>

One area where employment of the mother appears to be of influence is in their children's attitudes about work. Children of working mothers tend to see traditional male work and female work blended together. On the other hand, children of full-time homemakers more usually keep the work separated and sex-typed.<sup>33</sup> Daughters of employed mothers are more likely to consider a graduate education and a professional career as possible to achieve. Also they more frequently express intention to work after their marriage.

## WHO LOOKS AFTER THE CHILDREN?

### Substitute Care

In spite of consistent findings that maternal employment is a relatively unimportant variable in child rearing, it is obvious that someone must care for the children when mother works away from home. Stimulating substitute care is important if there is to

be a continuous progress of social and intellectual development for children. A recent survey in the state of Ohio indicates that for children whose mothers work, 47% are left at home with a relative or a paid sitter and another 31% are taken to the home of a relative or paid sitter. A group child care center was utilized by 6% of those surveyed.<sup>34</sup> The percentages of parents utilizing these types of substitute care in Ohio appear to be typical of percentages in other geographical areas as well.

The relatively low number of working mothers who take their child to a group child care arrangement may reflect its cost or geographical inconvenience. However, it also may reflect a belief that group child care is detrimental to the child. If so, that belief is not supported by recent investigations. Preschool children who attended day care centers were matched with similarly aged children cared for by their mothers at home. On the several behavioral measures utilized the children in both groups performed about the same.<sup>35</sup>

### Father Care

Almost nothing has been done to study possible effects father employment or father presence has on children. Those studies in which father interactions with children are observed result in fairly clear data, however. In essence, these data show father interactions differ substantially from those of mother. In one study the number and length of father verbal interactions with their infant in the home setting were observed and recorded. The average number of interactions per day between father and infant was 2.7. The average length of each interaction was 37.7 seconds. Father-infant interactions in this study were distinctly different from mother-child interactions.<sup>36</sup> While the amount of father-infant involvement reported in this study hopefully does not hold true for other populations, the data do square with what so frequently is observed in our culture; namely that father's work is earning money and mother's work is homemaking and child rearing.

## SUMMARY

Possible effects of maternal employment on children have been the subject for discussion, conjecture, and research for many years. The overwhelming research evidence is that maternal employment, by itself, has little influence on the behaviors of children. It is not directly related to either the quantity or the quality of contact between a mother and her children, or between a wife and her husband. More important issues to discuss in relation to maternal employment are: (1) mother's reasons for working; (2) acceptance of mother's employment by other family members; (3) quality of substitute child care



provided; (4) social and emotional health of the family; and (5) economic conditions that limit life choices.

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# HELPING YOUNG MEN PREPARE FOR CHANGING ROLES\*

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The dynamics of American culture have brought about many changes in the roles of men and women and of boys and girls as related to personal, home and family life. Even though patterns of family living in modern society are divergent, there still is greater freedom of role choice among family members now than in the past. Consequently, there is an increased need for boys as well as girls and of men as well as women to have formal educational experiences in home and family living.

## YOUNG MEN AS HOME ECONOMICS STUDENTS

Judging by the increased number enrolling in home economics classes, young men are becoming more aware of the need for preparation for assuming their present and future roles within their families. They are taking advantage of opportunities available to them to acquire competencies in these areas. Now that enrollment in any home economics class is open to them, provided that they have the required prerequisites, they can pursue their own interests, whether they be personal development or career oriented.

Home economics teachers are pleased to have more young men in their classes. Many have wanted to include instruction for boys in their programs because of the conviction that home economics education could play a vital role in the lives of these students. But obstacles have hindered boys from taking advantage of such opportunities. Societal changes, however, have helped to remove some of these obstacles. Now, courses are open to boys, and many are electing to enroll, but teachers will still be faced with the challenge of encouraging boys to continue to take advantage of the opportunities being provided. So long as we help boys achieve their goals they will continue to enroll in our classes.

## PREPAREDNESS FOR ENROLLMENT OF BOYS

Unfortunately, many teachers feel ill-prepared to help boys with their educational needs as related to

home and family life. Some had the good fortune of having a transitional experience of teaching boys, that is working with them alone is a class before having them with girls in a class situation. This experience provided opportunities to observe boys' responses and reactions, to learn ways of working with them, and to conclude how boys are like and different from girls. The teacher without this transitional experience and resulting insights may have more difficulty meeting the educational needs of both sexes in the common classroom.

Insights gained from working with boys make it clear that classes including boys need to differ from the traditionally girl-oriented offering. This is contrary to some contemporary statements on the blurring of sex roles and commonality of needs. Admittedly, many characteristics of either sex are culturally determined and subject to change. But there are other characteristics that research has shown to be biologically determined and therefore cannot be changed. Whether or not the characteristics are subject to change, they need to be dealt with when making curricular decisions. If our courses are going to be successful in meeting the educational needs of both boys and girls in a common class setting, the commonalities and differences in the sexes must be identified and taken into account in planning and implementing the curriculum.

In home economics, much study has been given to the characteristics of girls, their ways of functioning intellectually, their motivations, and the knowledge needed to develop as individuals and assume multiple roles both in and outside the home. But what have we known about boys? Have the opportunities provided for boys adequately met their educational needs?

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## A RESEARCH INQUIRY

Questions such as these prompted a three-year curricular study at Iowa State University to investigate bases for planning curricula appropriate for young men. Barriers to participation of boys in home economics classes were investigated. Roles related to personal and family life being assumed by young men were identified as viewed by high school boys, young adult males, parents of seniors in high school, and educators. Experiences teaching classes involving boys were solicited throughout the continental United States from home economics teachers who were recognized as being successful in working with boys. Characteristics of the male, more particularly the adolescent boy, were culled from research findings and theory reported in the literature. These characteristics provided insight as to his aptitudes, ways in which he was like and different from girls, his attitudes, aspirations, and other factors that motivate his behavior. After all data were collected, synthesized, and studied for implications, a statement of theory evolved that gave direction to the development of curricular guidelines, in five areas of home economics, which were organized into a resource guide, *Home Economics for Young Men*.

## CHARACTERISTICS OF THE YOUNG MALE STUDENT

By focusing on the characteristics of boys as well as on educational needs of the young adult males, learning strategies in home economics can be provided that will enable boys to achieve more satisfactorily the dual roles of the world of work and personal and family life. One factor to be taken into account is that the boy tends to have a masculine self-image that describes the way he would like to view himself even though it may be totally inconsistent with the way others see him. Studies have shown that boys view themselves as ambitious, adventurous, independent, masculine, self-confident, and shrewd. If a boy can see that the educational opportunity will be supportive of his idea of himself, or at least not run counter to what he is attempting to accomplish in reinforcing his self-image, he is likely to take advantage of the opportunity provided.

Boys have certain aptitudes and abilities, some more and others less, that influence the way they function and acquire skills in the classroom. They tend to have analytic ability and can do divergent thinking. They have field independence. Males, in general, are recognized for their numerical, scientific, and spatial abilities. Researchers and teachers have found that methods and techniques of instruction that take into account these aptitudes and abilities tend to be effective. Those found to be particularly successful are peer leadership, brainstorming, group

discussion, competitive exercises, problem-solving, immediate feedback, independent study and reality activities.

These methods and techniques are not innovative and have been used and proved effective with classes of girls. Because many girls have some of the same qualities as boys, but in differing degrees, there is justification for having used the methods. They should continue to be used in classes involving the participation of both boys and girls. But then girls have certain intellectual qualities and ways of functioning more common to them than to boys, which suggests that other teaching techniques and methods appropriate for their characteristics also should be used. Differences can be dealt with by diversity in classroom strategies. For achieving certain objectives, different methods may be used by each sex; for others, participation by both boys and girls in the same activity will be meaningful and effective.

## FOCUS OF COMPETENCIES TO BE ACQUIRED

There are differences in the content aspects of educational needs between boys and girls just as there are differences in appropriate methods for teaching the content. In each of the five subject areas of home economics, content has been identified that would be particularly helpful in aiding the young man to assume his roles as he takes on adult responsibilities. The concepts in the area of human development and the family are considered basic and fundamental for the boys to acquire breadth and depth of concepts in all other areas of home economics. Generally speaking, the focus should be on personal development, interpersonal relationships among peers and within the family, functions and responsibilities of the family, and nurture and concern for the well-being of children. Certain concerns about the world of work, particularly outlook for employment and employability are educational needs of all boys that can be incorporated in this area.

Personal and family economics is a vital area of study for the boys. Of the boys who participated in the surveys, more perceived a need for help in the area of money management than in any other area of home economics. Young males just out of high school identified their greatest difficulties in adjusting to adulthood as those concerned with planning for the future and saving money. Providing financial protection for himself and his family is a major concern. Because motivational forces – goals, values, and psychological needs – influence the use of money and other resources by an individual, a study of the relationship between these forces and personal and family economics is pertinent.

Because every individual during all periods of the



life span is involved in some aspect of housing, a study of housing is relevant for the adolescent male. Decisions concerning housing for a family are commonly made jointly by the husband and wife. Men, however, tend to take leadership in the selection, financing, and maintenance of the dwelling. Concepts related to these aspects of housing would have particular relevance for boys.

In the area of textiles and clothing, the males' needs are in clothing selection, grooming and buy-manship of clothing. Some boys may be very disinterested in clothing construction, whereas others may find the skills and satisfaction from achievement of a new task very beneficial. Boys can find self-expression through creative use of clothing construction techniques, but certainly not all boys should be expected to acquire construction skill.

Acquisition of competencies related to nutrition are just as vital for boys as for girls, perhaps more so, whereas those related to food preparation differ for the sexes. Research has shown that food likes and dislikes of the husband are the most influential factors in terms of the foods prepared and served to the young family. Adolescence is the teachable moment for relating nutritional well-being to physical fitness and prowess and health in later years.

Most men interested in food preparation do not see the need for such knowledge and skill in order to

perform an everyday task, but rather as an emergency measure, as a satisfying outlet for creative expression or as a meaningful leisure activity. Preparation to function at this level requires the development of selected skills to be used when the opportunity arises or as the situation necessitates. Implications for instructional purposes are that most boys do not need as comprehensive a range of food preparation skills as is commonly provided for girls. The boy interested in exploring a career in the food service industry would have a different goal and would benefit from the opportunity to develop the competencies provided in an occupationally oriented foods class.

#### THE CHALLENGE AT HAND

Our immediate challenge in home economics is reaching and serving more boys. In making curricular decisions for offerings, it is vital that the educational needs of boys as well as girls be brought into focus and that likenesses and differences between the sexes be taken into account. If consideration is given to such determining factors as the masculine self-image, aptitudes, cognitive abilities, and goals of the male, he will not be an intruder in home economics classrooms, but an active participant eager to take advantage of the opportunity to acquire greater competency for assuming his present and future roles as an individual and as a family member.

#### NEW PUBLICATION!

HOME ECONOMICS FOR YOUNG MEN: A Teaching Guide. By Eleanor L. Kohlmann. Ames, Iowa: Iowa State University Press, 1975, 330 pp., illustrated, paperback, \$8.95.

This book is a made-to-order guide for teachers finding more and more male students in their classes. It fills the immediate need for new and creative teaching materials for young men. Because the resource guide is based on sound theory and findings from an extensive research project, it is unique in scope and depth. Contained in this handy paperbound manual are curricular guidelines in the five areas of home economics: Human Development and the Family, Personal and Family Economics, Textiles and Clothing, Food and Nutrition, and Housing. High school home economics teachers will find this resource invaluable for planning coed home economics courses. The contents can be supplemented and integrated with material appropriate for girls. The book meets the challenge of preparing men for their changing roles in American Culture.

Write: Iowa State University Press, Ames, Iowa 50010.





# MYTHS THAT TELL US WHO WE ARE

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"You've come a long way, Baby!" or so the advertisement for a well-known cigarette puts it. We twentieth century Americans like to believe we've come a long way, don't we? We're especially fond of pointing to the fact that we have made more technological progress in the last fifty years — or is it even fewer than that — than in all the rest of recorded history. We Americans like to quote statistics (and in 1976 you'll hear even more) pointing to the fact that for such a young nation we have a proud heritage of incomparable progress. We've done it better faster!

"You've come a long way, Baby!" Directed at us as American women the statement seems true enough. More women are working at full-time careers than ever before, we are told. "This was the year of the break-through for women," declared the Chairperson of the National Women's Political Caucus, as more women were elected to political offices across the country than ever before in the history of America. And, indeed, all of these are break-throughs and advances for women, and we rightfully feel a sense of growing pride in being women.

We really have come a long way. And yet I read these statistics with a sense of uneasiness, for I wonder how many of us are experiencing a change in our own lives, our own values, and our own attitudes. Does it naturally follow that those of us back in the kitchens or in the classrooms really feel that the victories of those other women really change things for us? Do the young women who sit in our classrooms really feel very much different about themselves as women than did their grandmothers? Don't most of us and the girls we teach still define ourselves primarily in the role of homemaker, wife, mother? Don't we, in spite of the opening up of options for new roles for women, still see ourselves most fulfilled as someone's wife, mother, or help-mate?

I think there are good reasons for such pervasive attitudes on our part, and they are deeply rooted in our past. We, both women and men, still see ourselves, our places, our roles, in the light of some very old myths about what the relationship between woman and man is. We live with, and by, some basic beliefs, of which we are often not conscious, about who we are as female persons and, therefore, who men are as male persons. These myths, as they can be called, shape our present as surely as they have our grandmothers' past. Let's examine three of these myths to ask ourselves whether they dictate roles that we do want to act out, that we really do want to affirm. We may find that we as women are in captivity to myths of which we are not even conscious.

One of the fascinating and bothersome aspects of "Myth" is that within it there is truth and falsehood woven together. As Elizabeth Janeway says in *Man's World, Woman's Place*: "It is the nature of myth to be both true and false, false in fact, but true to human yearnings and human fears and thus at all times a powerful shaping force . . ."

## Woman As Temptress

Let us look at some myths, then, regarding Woman and Man. The first is one that pictures *Woman As Temptress*. It is rooted in ancient history and for those familiar with the Judaeo-Christian tradition, is found in one of the myths of Creation. You may remember the story. Man and Woman are in the Garden, the primeval state of bliss, of innocence, when the fruit which will reveal the knowledge of good and evil is offered, first by the serpent to the woman and then by the woman to the man.

The scene is set — Woman the temptress of Man the innocent. It really doesn't matter whether you argue that, after all, the woman was first tempted by

the serpent and that she's not to blame, for the myth has come down through the pages of history — Bathsheba and David, Delilah and Samson. It is told and re-told and captivates us still. And we both, women and men, succumb to its power and let it define us.

Look at our culture to see its powerful presence. Woman as Temptress lives every time we turn on the television set and view the commercials offering thousands of ways for a woman to make herself more alluring. Look at the magazine advertisements whose products promise ravishing new images. And to what end? To "get" a man, of course. To tempt a man under the spell. For seemingly, if we women are just ourselves, we will not be attractive enough to "catch" one; so we'd better hide who we really are.

The man, on the other hand, is seen as victim to the woman's trap, unable to see beyond the skin-deep deception of applied beauty. The implication is that men are really disinterested in women until lured into the net and then the real work begins as the calculating woman thinks up new wiles to hold onto the naive and unsuspecting man. Indeed, a great part of the nation's economy thrives on the myth of Woman as Temptress, and we women buy the myth as we purchase each new product.

Now let's ask some questions about the myth of Woman as Temptress. What does it dictate that is important to me as a person who is female? What would make me feel good about myself, according to this myth? How do I regard other women? How do I view men? How would I view marriage in the light of this myth? Who is captive and who is free? What does the myth say about what it means to be masculine? How do men see themselves according to the myth?

And what kinds of relationships does this myth dictate? Do we see each other as objects to be teased and used? Is friendship possible between men and women in the context of this myth? Does the myth keep us from seeing each other as real persons? What does the myth say to you?

#### Woman On A Pedestal

A second image, which sees *Woman as being on a pedestal*, is possibly more cherished by women than by men. Again, it has its roots in a Biblical myth, that of Woman as Virgin Mary, untouchable, spiritual, out of reach to mere human beings. In the contemporary world it goes like this: "A woman shouldn't really have to be mixed up in the busy give-and-take of life; the competitive, hard-nosed world of work and sweat is more than a woman can take." Or put another way, "A man's place is outer; a woman's space is inner." And women, flattered by the height, the distance, accept the roses and busy themselves with things more appropriate to their being: safe and detached,

bathed in an aura of femininity. Women surely want to be "feminine," or as it is sometimes put, "A man needs a woman to be a woman." A translation might be: "Stay out of my world; you know your place."

Another form that the Pedestal Myth takes is summed up by Shakespeare, "Frailty, thy name is woman." We women are to be protected as the weaker sex which can't quite cope. And husbands, living out the myth, don't level with their wives about the problems. (Example: in a recent episode in "Rhoda," a popular T-V show, Joe can't bring himself to share his financial problems with bride Rhoda; she would not be able to understand.) "Protect her and shelter her from problems." Many of us play this mythical game and avoid having to be intimate and close. And women perpetuate the myth by telling themselves, "He has too many really important things to do; I couldn't bother him with my problems." What kind of relationship is possible when one party is on a pedestal?

An ironic result of the pedestal myth is that it gives women the illusion of equality — "separate but equal." Your world — my place. And it might even work except that the air gets thin on that pedestal and the sitter gets "antsy" to come down where it's all happening.

This myth is seen in the way traditionally female occupations are viewed — secretary, teacher, nurse — by all of us. Even when underpaid women in these vocations are the last to go on strike, the letters to the editor are irate and righteously indignant — "Nurses would never do that; nursing is a profession that is above all that." Never mind that nurses have





real grievances, especially in comparison to the status of doctors. The Pedestal Myth wins again!

Questions to ponder about the Pedestal Myth might be: In what ways is this myth appealing to us as women? What kinds of things does it keep us from having the *opportunity* to do? What does it give us the responsibility of doing? In what ways are public schools organized to perpetuate this myth? How does "being feminine" differ from "being female"?

### Woman as Mother

A third myth regarding woman's identity that is closely related to the second in its Biblical focus on Mary, the Mother of Jesus, is the myth of woman as Virgin-Mother, an unlikely combination, yet appealing. This image has surely been the most binding on women, as they are viewed as fulfilled only through birth and motherhood. According to the myth, a woman at her best is passive, unquestioning, resigned, a vessel for the fulfillment of men. Virtue is in the quiet acceptance of one's status or fate, the heroic stoicism of one bearing up silently, uncomprehending, yet readily accepting.

The *Woman-as-Mother* myth differs from the Pedestal Myth in that the image is not separate-but-equal, but living-for-others. Woman's purpose in life is to give. As Phyllis McGinley, well-known writer puts it, "We (women) are the self-immolators, the sacrificers, the givers, not the eaters-up of life." And we are not even active participants, it would seem, except vicariously.

What does it mean to live through others? Husbands? Children? Pupils? "I'm living through you; don't let me down... Don't grow up and leave me... I need you so." And the possessiveness divides and breaks the relationships and the gap grows as the need to hold on becomes greater. For, in this image, if the mother lets go, lets others live their own lives, she loses her identity. "What good am I now? I have nothing to contribute." The malady of women's middle years begins.

The myth also lives in the words of psychologist Bruno Bettelheim: "We must start with the realization that, as much as women want to be good scientists and engineers, they want first and foremost to be womanly companions of men and to be mothers." What does it mean to be a companion? Is that the primary role we want to affirm for women? What kinds of unique contributions can women make to society besides those emanating from motherhood? Do all women want, above all else, to be mothers?

Or again, are men more destructive than women? Can men be as effective at parenting and at nurturing, as women? How could children benefit from shared parenthood roles? In what ways can a career-home-making-motherhood-be fulfilling to a woman? In



what ways may all three roles be limiting to a woman?

So there they are, three myths which describe our yearnings and fears. They hold us in bondage in ways we hardly recognize, binding us, both women and men, to limited roles and blinding us to new vision. What do we do with those myths? What do we salvage? What new roles do we wish to explore and to accept? What new possibilities do we see for ourselves?

### The Whole Woman

I want to affirm another image for womanhood that I believe contains many of our yearnings to be fulfilled persons. It, too, has Biblical roots in another Creation Myth found in Genesis, one much less widely read, a later story. Found in the first chapter it speaks of equality: "So God created humankind, male and female, he created them." Woman is viewed as a whole being, equal, completely responsible, completely active, complete. The image is of two whole persons, male and female, interdependent yet independent.

*Wholeness* contains several aspects, but I want to suggest three which may be helpful in creating a new image of woman. First, wholeness suggests *health*, harmony of the physical, the intellectual, the spiritual, a state in which all parts are working together. Ignoring one aspect, the intellectual one for example, will result in over-emphasis on another, with the result that we may very well be projecting ourselves as solely physical. In our formative years we as young women are often encouraged to be good students and develop our intellectual talents, but we also get messages that boys are the ones expected to excel. It requires real courage to be able to affirm the several aspects of the healthy self, especially when the culture seems to negate some.

Second, wholeness suggests independence, not needing to live through someone else to gain one's



own identity, one's sense of worthwhileness. Gaining independence will mean that one does not marry in order to find oneself. Unfortunately, in our culture there is for women such an emphasis on being married that a woman often marries expecting the husband to provide her identity. In contrast, in order to develop a mature relationship, two persons need to work out a relationship that allows each to be a whole self. To be reinforced and strengthened by relationships and by others' views of us is important, but those opinions cannot substitute for one's acceptance and affirmation of oneself. In accepting the myths and the roles these myths dictate, we are abdicating the responsibility to work through our own identity. After we gain independence we can experience an *interdependence*, an ability to relate to others as whole persons.

Third, wholeness includes freedom, the freedom to choose from among alternatives. These include the roles of homemaker and mother but are not limited to them as providing fulfillment for all women. It is necessary to try out several possibilities in order to find the ways one can make the greatest contribution to society and to express one's talents and abilities.

Wholeness means coming to terms with the partially true and partially false images, accepting one's real humanity and overcoming those demands of society that block growth. It involves the development of a woman's full capacities and acceptance of anxieties and fears within oneself. It means realizing the hypocrisy of society and its cultural demands, and yet finding and affirming the values which bring



wholeness, both to individuals and society. The possibilities for women in this process are exciting, stimulating, creative, and as yet largely unknown. We as women, as teachers and students, can make a difference in shaping the future not only for women but for all persons.

#### NONSEXIST RESOURCES

A helpful bibliography of nonsexist books for children, teen-agers, and college students is found in "Feminist Resources for Elementary and Secondary Schools and Colleges," available for \$1.00 plus \$.25 postage and handling from a nonprofit, tax-exempt educational and publishing corporation: THE FEMINIST PRESS, P.O. Box 334, Old Westbury, NY 11568.

# COPING WITH ROLE CONFLICT: MY STORY



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As I wrote this article expressing my thoughts, concerns, and telling of the events that took place in my life during the time I was pursuing a doctorate without my husband's "best wishes", I went through emotional turmoil. Writing this article has been one of the most difficult tasks I have ever undertaken. It was difficult because I expressed feelings about personal problems and conflicts and at the same time tried to be objective. As I wrote and "re-wrote" each section, I asked my husband to read it and indicate whether he agreed or disagreed with that particular topic. In sections where there was disagreement, I deleted it from the article. The article reflects "my" thoughts and concerns during and after obtaining a more advanced degree, and discusses the obligations that home economics has to society in helping couples such as Charles and me solve problems that arise in the changing roles of men and women.

I would hesitate to recommend that anyone else follow the same course I have taken, but I would do it all over again in the same way only at a younger age. I wish to present my feelings concerning this event and let each reader make an individual decision as to what he or she would do if faced with a similar situation.

## BACKGROUND INFORMATION

I started college before my husband (Charles) and I became engaged to be married. After completing

one year of college Charles presented me with an engagement ring. Shortly after, he decided that he would also enroll in college. His family seemed shocked since they had previously encouraged him to enroll but he had refused.

I completed college and taught one year while he was finishing his degree. We both taught at the same school for about five years during which time we had two daughters, Tammy and Rhonda. I encouraged and pressured him to work on his master's degree. Soon he decided to work on his master's degree in administration. After completing his course work he became an elementary principal.

At this time I had aspirations to work on my master's degree, but never dreamed that I might work toward a doctorate. While attending the University of Georgia one summer I decided to apply for a research grant in order to obtain a scholarship to work toward a master's degree during the academic year. Charles agreed that it was the right thing to do and stated that he would be willing to move to Athens and work toward a specialist's degree if there were fellowships available for him also.

I wrote a proposal to do research related to the disadvantaged consumer and received a scholarship. After finding that the research proposal had been approved, Charles decided that he would not move to Athens to work toward a higher degree.

I continued to have interest in completing the research and the degree and felt that I should fulfill my obligations to the foundation which funded the research. Charles agreed to care for the children while I was away on an average of three days a week in order to complete my master's degree and the research project.

The degree was completed within that year and I was offered two positions, one as a Graduate Research Assistant and another as a Specialist in the Expanded Nutrition Program with the Cooperative Extension Service at the University. Both of these were located in Athens which meant that if I accepted one of the jobs we would have to move. Charles accepted a position in a town near Athens so that I could accept one of the positions which had been offered.

If I had accepted the position as Graduate Research Assistant, I would have entered the doctoral program. Charles did not want me to accept this position so I took the full-time job with the Cooperative Extension Service.

#### DOCTORAL STUDY AT THE UNIVERSITY

During the year fellowships were offered through the EPDA program in Vocational Education. I applied for one of the fellowships and received it. By this time Charles acknowledged my intense interest in entering the doctoral program but did not encourage me.

For years I had "pushed" Charles to strive for professional advancement through either a higher degree or other techniques. His answer was always, "I don't want to go for another degree." I seemed to be seeking to achieve my own goals through him. This caused conflict because his goals did not include more education and were not the same as mine. If my goals were to be achieved it was logical that I should achieve them through my own efforts. If I wanted to be "me" why couldn't I let my husband be "himself". So I accepted the fellowship and began work toward my doctorate.

#### *Reactions of my husband.*

Charles' general reactions were:

- (1) to give no encouragement;
- (2) to offer some help around the home;
- (3) to tell me, when I had problems and tried to discuss them with him, that I had made the decision and I should solve my own problems;
- (4) to make comments in front of the children that all I cared about was school and books.

Charles seemed to have the philosophy that he had done something for me — he had allowed me to enter the doctoral program — and now it was my turn to show appreciation. I tried to discuss it with him and

get him to see my side of the situation. I was under a tremendous amount of pressure and needed more help both emotionally and physically around the house. He did not understand and was not able to give this help to me because of his own feelings about the situation.

At this point I realized that I could not deal with the conflict openly without undergoing more mental stress than I could take. So I placed myself in "remote control". Charles operated the switch and when he spoke I "obeyed". I considered myself as belonging to *me* when:

- (1) he was at work
- (2) he did not request me to do something for him
- (3) he was asleep.

#### *Reactions of others.*

Few others understood why I wanted more education. My mother and other relatives thought I had lost my mind. I'll never forget the day that my younger sister said, "Why do you want more education? You will probably end up digging stumps for a living." The superintendent of schools where Charles was principal called me aside at a PTA meeting and asked, "Ruth, why do you want to do this? I don't understand why you should want a higher degree than your husband."

I suppose the greatest shock of all came when I went to the family doctor. He was treating me for an infection. After the examination I was sitting in the waiting room studying for my statistics course while waiting for the results and he called me into his office. He indicated that he would like to talk with me privately. I thought "Oh NO! He's found cancer." The look on his face told me that it was bad. But instead of telling me that I had cancer he told me that I was being unfair to my husband by getting another degree. He asked the same question only differently. His question was, "Why are you doing this to your husband?" I could not understand his point of view. I stated that I did not intend to hurt Charles, but that I was an individual who had goals in my life to fulfill. Holding my statistics book in my lap, I told him of my success in making the top score in the final statistics exam the quarter before. He said that he had taken statistics with a girl that always made A's and elaborated on how much he disliked her. During the conversation he admitted to being threatened by her high scores in statistics. I understood his feelings because I seemed to be doing the same to Charles.

#### *Coping with the reactions.*

I found that there were several techniques I could use in successfully coping with these reactions.

My techniques were:



- (1) to seek and receive encouragement from college professors, other women, peers, and faith;
- (2) to do as much as I could around the home and not worry about what I could not do;
- (3) to discuss my problems with people who seemed to care about me as an individual and to seek support from them;
- (4) to explain to the children why I was spending time studying and why I was going to school.

I received negative reinforcement from Charles through sarcastic remarks, a frown, or long periods of silence during which he ignored me. Knowing of his attitude and philosophy about the role of a wife, and knowing that I was unable to fulfill this role served to reinforce my positive attitude toward work and school.

#### *The compromise: then and now*

Realizing the amount of pressure Charles was under because of his job as a principal and because of my doctoral program, I at one point offered to give up the program and quit school. He indicated that he would rather I finish my degree. This eliminated only some of the conflict. We tried to be open about the difficulties, and we didn't pretend that everything was running smoothly all of the time. We went through periods when we were so angry with each other that we were afraid to discuss our difficulties so we kept silent and pretended that problems did not exist.

Now we try to compromise. I usually give in first and ask, "What would you like for me to do about the situation?" Then we look at the situation logically and compromise. Charles knows that if he does not compromise, I may do what I want and ignore him. I don't mind compromising but if we don't share in the compromise Charles now knows what my next move may be. The next time I wish to do something in my life that might effect him, he realizes I may do it without discussing it with him at all. Therefore, he will now discuss issues with me although he doesn't always like to. There are times when he tells me to do what I want to do; that I will do it anyway regardless of what he says.

#### **ACCEPTANCE: SUCCESS AND FAILURE**

Would you believe that Charles now keeps saying "We just have to accept each other." Yes, he does accept me as an individual, but not as a traditional wife. And that is exactly the way I want to be accepted. I am a failure as a traditional wife, but it sure is great to be a success as a person! Having this acceptance is worth all the pains I have endured

through the process. If I had the chance to start all over again, I would still seek the higher degree. I would not only do it for myself, but, if possible, for a million other women in the world.

Why do I feel that it was the right thing to do? Primarily, it is because of my relationship with my husband. Charles has more respect for me now than ever before. At times he now encourages me in my career. After finishing my doctorate, my husband encouraged me to accept my current position at Virginia Polytechnic Institute and State University. We moved from Georgia to Virginia because of my job. He has recently indicated that he would move again if I received a better offer and was interested in moving. He teases me at times and refers to me as "General", but both he and I know that I am still on "remote control" and that he operates the switch. However, he doesn't make excessive demands on me as he once did. In fact, he now does as much as I do in managing the home. He does it voluntarily and I don't have to ask him to help.

#### *Management by the family.*

All family members assume some responsibility in the household tasks. Charles voluntarily assumed the responsibility of the laundry about a year ago. He does a better job than I ever did. The girls now are old enough to be of help around the home and they assume responsibility for the dishes and for their bedrooms. I still assume responsibility for most of the shopping and for meal preparation. Everyone chips in and helps out when someone is unable to assume the responsibilities for which they are assigned. Everything runs very smoothly.

#### *Personal and family goals.*

My husband's personal goals in life are different from the ones I hold. Charles seeks satisfaction and contentment from life as it is and derives satisfaction from professional advancement, but does not feel that additional degrees are so important. I grew up on a farm and was rewarded as a child for my ability to produce. This, I believe, has had an impact on me as an adult. I continue to hold this pattern in life and feel that my worth as an individual is related to my productiveness. Charles received his positive reinforcement as a child from athletics and sports. He continues to enjoy the role of athletic director in his present job as Assistant Principal.

#### **COPING WITH ROLE CONFLICT**

Both my husband and I hold the philosophy that an individual should seek the career that best suits his or her own personality and within which the individual is happiest. Our greatest conflicts in the beginning grew out of my having pushed my husband to

achieve professional advancement when subconsciously I was seeking gratification for myself through him. He never desired to go to college and probably would never have attended had I not started first. Traditional expectations of both wife and husband having similar educational levels forced him into college. We both now pursue our own personal career goals separately while pursuing family goals together. Our family goals include that of educating our children, buying a farm, paying for our home, and retirement. Now that we understand each other better there is less conflict.

#### *Meeting the Expectations of the role of wife.*

I do not function well in the role of the traditional wife because:

- (1) I like to work in order to have enough income to live within the standards to which the family is accustomed;
- (2) I consider myself an individual and not someone else's property;
- (3) The role of wife does not, for me, provide enough positive reinforcement to make it rewarding;
- (4) I view the ideal wife as being quite different from the traditional wife.

Charles feels that the ideal wife is a person who stays at home and manages the household. The main function of the wife, he says, is to provide a place for everything and see that everything is in its place. He has held this view for the eighteen years that we have been married and says that he will never change. These views are reinforced by his male friends who tell him about their wives who do not work but instead center their whole lives around them. One of Charles' friends talks about his wife who serves him coffee in bed and brings a glass of orange juice to him while he shaves.

My views of the ideal wife include companionship, a pleasing and compatible personality, love and compassion, as well as the ability to manage a home. We agree on most items but disagree on the issue of whether the wife should spend all of her time at home. This issue is settled by the fact that he wants me to work in order for us to have the food, clothing and shelter that we are accustomed to having.

#### *Homemaking vs. Career*

Charles and the children enjoy the money that I bring home, but they do not want me to work. This certainly places me in a difficult position because I cannot bring home money without working and I cannot work without spending time away from home. I enjoy working and try to meet all the expectations of my position, including teaching, conducting research, writing articles, and attending professional

conferences. Charles states that my traveling is the most difficult aspect of my job for him to accept. This creates a double burden for me since I have to travel in order to do some of my teaching as well as to attend conferences. It is sometimes like being between a "rock and a hard place"!

The dual role of homemaking and career is, in my case, like standing on a wire fence. The fence shakes, squeaks, and wobbles. When the clock signals time for work, I become Dr. Ruth D. Harris and jump to the left to carry out my professional role. When the clock strikes 5:00 in the afternoon, I jump back on the fence, momentarily balance myself and then jump to the right, for then I assume the role of wife and mother. Each side of the fence requires me to assume a different role as an individual. However, jumping from one side of the fence to the other doesn't change my basic personality. My feet are sometimes tired of jumping and my mind is often tired from switching roles, but I don't want to give up my career nor do I wish to give up being a mother and a wife.

Most of the time we are happy. Sometimes we experience conflict in our "new" non-traditional role. There is a possibility that I might have been the ideal "traditional" wife had my husband given me the positive feedback that I needed concerning my value and my contribution to the family as a housewife during the first few years of our marriage. When I think of those years, I remember trying to place everything in the house where he felt it should go, because when I made the decision it was often not "right" according to him.

The "right way", according to him, was the way his mother kept house. Within the first months of our marriage, he told me of the disappointment he had about the way I did my household chores. I tried to do tasks exactly the way he wanted, but I couldn't because I could not read his mind or become someone else. My philosophy was that consideration for placing items in the house should be centered around convenience in saving time and every while using. His philosophy was that neatness and looks should be considered first.

I valued his judgment because he had good ideas. However, these ideas were right for him but not right for me. It soon became a burden trying to remember what he would like for me to do in situations around the home. So I used a "deaf" ear when he told me I had left a task without completing it, or did it the wrong way. He reminded me of Felix in the TV program, "The Odd Couple". The more pressure he placed upon me about the tasks, the more of a burden it became to be a housewife, so I turned to my work and career for satisfactions of achievement. I centered my interest around the job at work rather than the job at home. As a result my housekeeping



became more poorly done.

Negative reinforcement and punishment did not encourage me to like the role of homemaking or to perform better in that role. I think my husband understands now that he had as much a part in making me "career oriented" as I did. It is only fair for us to accept each other now since we definitely influenced each other to become what we are. After I became more career oriented, he seemed to lose some interest in his career. He began to help more in household tasks and I, in turn, assumed part of his role as "the family provider" in terms of bringing in income.

We are as happy now as we have ever been and possibly even happier. There is more of a togetherness. There are times when we both feel guilt and internal conflict because I have invaded his traditional domain of husband and provider and he has invaded my traditional domain of housewife. But neither of us would go back eighteen years to start over again and do things any differently than we did the first time around.

The keys to our staying together these years have been PATIENCE! LOVE! ADAPTABILITY! We accept each other as valuable people in our lives and are continuing to Grow together and become more mature in our outlook for the future.

#### **BETTER FAMILY LIFE THROUGH HOME ECONOMICS EDUCATION: A FUTURISTIC LOOK**

I believe that Home Economics Education programs can help to improve the home and family life of boys and girls, now and in the future. We not only can, but should, assume this responsibility. Men are parents and can have as much influence upon their children as mothers. Many men, as Charles did, assume this role without preparation for the responsibility. Males and females should be encouraged to enroll in Home Economics programs not only to become more competent parents, but also to develop competencies in the areas of (1) family living, (2) home management, (3) foods and nutrition, (4) home furnishings, (5) consumer education, (6) clothing, and (7) child care.

In such classes, cooperation between sexes in the performance of housekeeping tasks, child rearing, and decision making in purchasing foods, home furnishings, clothing and other items should be the central

focus of the curriculum. Home Economics programs should promote the recognition of individual differences in abilities and preferences of family members, differentiating tasks according to qualifications rather than according to sex role stereotypes. The study of household tasks should not concentrate on whether the male or female performs them, but rather on the efficiency of getting the job done. This also applies to "parenting" or consumer purchasing tasks.

Basic to "happy" family living is the goal of allowing individuals to be real, to be themselves, to be whatever their unique mix makes it most possible for them to be! We should encourage the broadening acceptance of varieties of roles for individuals. Charles and I had to arrive at acceptance through eighteen years of "trial and error" techniques. It would have helped our family if both of us had developed some of these skills and attitudes at a younger age.

Regardless of the goals that husbands and wives seek to fulfill in their lives, what they do has an effect upon others. When a married woman chooses a career she alters more than her own life style; her husband's and her children's life styles are altered also. We in Home Economics need to help the men and the women of the future see the value of functional diversity in the home for all family members. Home Economics Education can provide assistance in solving many of the problems which men and women encounter in adjusting to changing roles within the family.

The fast pace of change in our society makes it necessary that the study of Home Economics reflect the changing roles of men and women in our society. Home Economics should be available for males as well as females. Home Economics has progressed through the century because the profession has had intelligent and creative leaders who believe in meeting change with change.

The futuristic look focuses upon men and women working and living together on both sides of the home's front door. We need both men and women Home Economics teachers working together to prepare male and female students for both sides of this door. It is imperative that more male teachers join the faculty in order to serve as models for the male student in our Home Economics programs. Their influence is needed not only upon the male student but also in curriculum revisions on a nationwide basis.



# TELLING VIRGINIA TO EARN HER OWN WAY\*

Martha Patton  
Columnist for  
Chicago Tribune/New York News



MAYBE THE TIME has come to tell Virginia there is no Santa Claus. At least it's time to stop telling little girls — either overtly or by implication — that someday someone is going to take care of them.

In a country where one in three marriages ends in divorce, where only 47 million women (there are a total of 90 million women and girls over 14 in the United States) are married and living with their husbands, marriage has simply ceased to be the happy ending it once was.

What do you tell your little girl?

You tell her to prepare to earn her own way. You tell her to study and work to be able to support herself, just as if she were a boy.

THEN YOU TELL your big girl to save and invest her money to secure her future. And, if necessary, you nag a bit.

Because even the most fiercely independent feminist may have this crazy feeling, somewhere in the back of her head, that it's not really up to her.

I hear from both men and women and I've never had a letter from a man who expected someone else to take care of him. Yet women ask me about support all the time.

IF I WRITE a piece on the support rights of married women, several women who have been divorced for years write in to ask if they're eligible.

Widows of 40 write to complain because they won't receive Social Security widow benefits until they're 60. Older women who have never married realize too late they've made no financial preparation for retirement.

Now I know women have some special problems.

THEY HAVE NOT been paid as well as their male peers and they have been denied mortgages.

Women have had trouble finding an investment

counselor who would let them take the risks that men routinely take. (Until recently it was difficult, if not impossible, for a woman to trade stock and commodity futures, simply because she was a woman.)

But things are beginning to change.

SALARIES ARE more commensurate with the job, qualified women are considered for mortgages and, of course, a woman can always fire the investment counselor who fails to give her what she wants.

Or, she can face the fact that the average small investor (if she is a small investor) needs to join in some kind of group endeavor anyway. The mutual fund, or some similar plan, is the only way the small investor can achieve the diversification that planned investment demands.

And I have never heard of such a group plan that discriminated by sex. (The only discrimination, if you can call it that, might be by minimum amount that may be invested.)

BUT BEFORE SHE enters into any kind of risk investment, the single woman, just like the single man or married person, must first accumulate the nonrisk savings that will help allow that risk investment to work.

The prudent investor, in addition to diversification, must have such a cushion (an emergency-reserve fund) so that risk investment will not be disturbed every time an emergency, or major purchase, needs to be taken care of.

And there certainly is no discrimination against the woman as saver. She is welcome in any savings institution in the land. All she needs is money.

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ADELINE J. GEO-KARIS  
MEMBER OF HOUSE OF REPRESENTATIVES  
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## EQUAL RIGHTS FOR MEN AND WOMEN

The Equal Rights Amendment has been ratified in 34 States as this article is published. After 38 States ratify it, it becomes part of the law of the land. The Amendment states as follows:

Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex.

Simply stated, the Amendment provides that sex should not be a factor in determining the legal rights of men and women. Thus, it recognizes the fundamental dignity and individuality of each human being. Men as well as women are entitled to equal rights, opportunities, and financial rewards.

From experience I have found that equal opportunity and equal pay do not always exist. I served in the U.S. Navy in World War II, entering as a licensed attorney with internship completed. When the war ended, I left the military service and tried to get a position with several different law firms in my home county. Although I had excellent references and recommendations, I found that women lawyers were not being hired by law firms. Therefore, having more nerve than brains, I decided to open my own law office and start practicing law. It never dawned on me that I might not succeed! With God's help, the sense of challenge acquired from my immigrant background, being the only college graduate of ten children and a rather strongminded individual who thrives on challenges, I struggled for awhile but I did not fail. Had I been more timid and shy the result

could have been to the contrary. Many of my lady lawyer friends decided that the lack of encouragement and support from the profession to enter private practice was just too much of an obstacle. They instead entered government service or other fields. Women in the legal profession had little or no encouragement in the field until as recently as 1972.

### EQUAL OPPORTUNITY AND FAMILY LIFE

Some women who consider themselves happy and content as housewives apparently feel threatened by the women's rights movement. They express concern that the movement is a plot to propel "normal" women out of their homes in search of that elusive goal called self-fulfillment. It's true that feminists want every woman to pursue the goal of self-fulfillment. However, they are not claiming that it can be found in any one place — home, office, or elsewhere. After all, fulfillment is a state of mind that is different for each of us. It comes with feeling good about ourselves, doing what we really want to do, and liking what we're doing.

There is no doubt that the traditional job of homemaker can provide the fulfillment. Still, many women who claim they have everything they want — husband, children, a house, and many of the luxuries of life — still don't feel fulfilled. Why? Why is it that abuse of certain drugs, including alcohol, amphetamines, and barbiturates, reaches such high proportions among suburban housewives? Why do so

many women feel they have to refer to themselves as "just a housewife"?

Perhaps the answer lies not in where we spend our time but in how we spend it. Historically women were made to feel guilty if they spent their days doing anything but tending house, husband and children. Many women were led to believe that biological and emotional distinctions make them incapable of doing anything else. Whether self-fulfillment takes the form of a monetary job or not, women must have the right and the encouragement to choose and be involved in projects inside or outside the house that are challenging and socially meaningful.

Does this mean that advocates of women's rights want women to trade places with men? Certainly not. But many do believe that the roles and duties of marriage should be assigned according to natural talents and inclinations, not on the basis of sex. Marriage should be a partnership of equals where the dependence is mutual, the obligations reciprocal, and the individualities maintained and respected.

What benefits would be derived from a marriage based on a partnership of equals? With a more equal approach to home and parental responsibilities, a father would have more time and influence over the lives of his children. A mother would have much more guilt-free time to pursue the activities and hobbies that interest her. A marriage based on a partnership of equals would not destroy love, but it would destroy many of the difficult expectations and standards that often stymie love. In place of burdensome, stereotyped roles there would be relationships based on reality and mutual respect.

Ardent feminists will have to understand that a woman who believes in being a homemaker has the right to choose to stay at home and be proud of it. At the same time housewives must not insist that every woman's place is in the home. A great majority of women find it economically necessary to have outside jobs. The passage of the Equal Rights Amendment will elevate the financial status of the working woman and further emphasize the monetary value of the homemaker's services.

#### OBJECTIONS TO ERA: RAISED AND REFUTED

One of the main objections voiced by the opponents to the passage of the Amendment is that

women can be drafted. As a matter of fact, women have been eligible for draft under our Federal laws ever since the 1940's. If the country is in dire emergency, all of us — men, women, and children — should be responsive to the country's needs. Congress would still be able to exempt people from certain types of service, especially if they have children.

Another objection stated by the opponents to the Amendment is that it will require men and women to share certain facilities such as locker rooms and lavatories. The Amendment does not affect laws governing privacy or social customs. Equality does not mean sameness. Social customs and personal relationships between men and women will continue to be decided by the individuals involved.

Jordan Miller of Glencoe, Illinois, is coordinator of a new and growing group, Men for the ERA. He points out that those opposed to ERA say legislation is already on the books to protect women. This legislation, Title VII of the Civil Rights Act, applies only to businesses with 15 or more employees which are involved in interstate commerce. Millions of women are thus left unprotected.

#### CONCLUSION

Not all of the proposals being made by Women's Rights advocates will work equally well for everyone. However, most of the goals are not only reasonable and desirable, but necessary for the survival of the family. If the family is to prosper and grow, the individual members must be allowed to prosper and grow. As women become progressively less dependent on men for their emotional and economic survival, marriage will offer more room for that individual growth.

In America the qualities of good character, ability, and initiative are determinants of success. If one believes that every person has the inherent right to develop these qualities to the fullest of his or her respective potential, then one also believes that the Equal Rights Amendment means equal opportunity and equal recognition for all, with dignity and justice.

#### ACKNOWLEDGMENTS

Cullison, Pamela Wilson. "Women's Rights and the Family: A Commonsense Look." *Better Homes and Gardens*. October, 1973.

Miller, Jordan. *Lake Forester*. April 4, 1974.

Studies being done at Loyola University in Chicago have led to clear indications that when interacting with strangers, people tend to help those of the opposite sex more than those of the same sex. If this is

true, how might this affect our teaching of management or "how to get things done"? Have students conduct some action research to see if they can "verify" the findings of the research at Loyola.



# APPRAISING ROLE SHIFTS

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Historically, society has upheld a role ideology for men and women. Role expectations for boys and girls and men and women have long been in keeping with this ideology which indicates that a woman's place is in the home and a man's place is in the labor force. Families, as well as social support systems such as school curricula and student counseling, have traditionally encouraged such role behavior based largely on sex.

Today, however, rapid social change is a factor leading to changing life styles for many families. As a result, roles within families have been restructured in unexpected ways. This shifting of roles includes not only the changing of responsibilities but the redefinition of rights, duties, and privileges.

The most evident role shift occurring in American society is that of wives and mothers entering the labor force. According to Nye and Berardo<sup>1</sup> there is a

adult lives. As this shift occurs in families, they must go through a transition period during which roles are redefined; responsibilities, rights, duties, and privileges are reallocated; adjustments are made.

Role shifts almost inevitably will cause some degree of stress in families establishing dual careers.<sup>2</sup> This is defined by Burr<sup>3</sup> as "Stress generated within a person when he either cannot comply or has difficulty with the expectations of a role or set of roles" (p. 129). Unless recognized and managed, stress-



More women are going to work

gradual evolvement of a provider role for married women in which they will come to be expected to work in paid employment most, if not all, of their



Conflicting demands generate stress

producing circumstances surrounding role shifts may trigger a chain of events leading to a crisis.<sup>4</sup> An authority in the field of psychological stress theory, Richard H. Lazarus, suggests that an important part of strengthening a person's ability to handle a stress-producing situation involves learning to appraise the psychological and situational components of the situation.<sup>5</sup>

## PREPARING FAMILIES FOR CHANGE

Helping family members prepare to make possible non-traditional role shifts offers a special challenge to Home Economics teachers and other Family Life educators. Families need help in recognizing that a role shift for the wife and/or mother into paid employment almost invariably means some role changes for other family members as well. Further, family



Father's role is changing

members need to recognize difficulties and changes in family living and family relations which may occur as women begin to share the provider role. Identification of these role shifts and the resulting stress is an important first step in successfully coping during transition periods.

Following is an exercise which home economics teachers and others might use when helping family members appraise circumstances surrounding role transitions. In the example given below the focus of the major role shift is: Wife Begins Full-time Employment. By altering the major role shift focus, the exercise can be adopted to other transitions which families may face at various stages of the life cycle. Appraisals may deal with proposed role shifts, role shifts already underway in the individual's family life, or projected role shifts. The roles held by family members before a major role shift should be identified by each person before participating in the exercise.

## EXERCISE IN APPRAISING ROLE SHIFTS

### Part I

Directions: If a major role shift occurred in your particular family, what role shifts would other family members need to make for things to run smoothly? Write each of these additional role shifts in the appropriate column.

Major Role Shift: *WIFE BEGINS FULL-TIME EMPLOYMENT*

### Additional Role Shifts Needed

	Roles to Adopt	Roles to Give Up	Roles to Alter	Roles to Maintain Alone*	Roles to Share*
Role shifts for husband to make					
Role shifts for wife to make					
Role shifts for children to make (This category may be separated and each child considered individually)					

\*Role shifts identified here may also have been listed in the first three columns.

### Part II

Directions: Refer to the list of role shifts you charted in Part I for each family member. Analyze each as a possible *stress-producing* situation. Re-chart in the appropriate column(s) on the following page those role shifts you listed in Part I which may trigger one or more of the identified stress-producing situations.

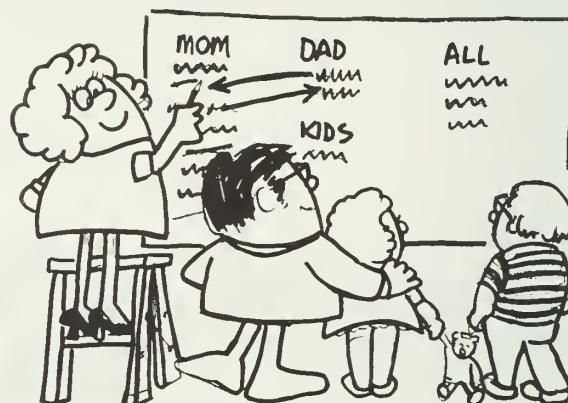
## Stress-Producing Situations

	Family Disagree- ments	Attitude Resistance by Some Members	Role Conflict for Some*	Change in Physical or Mental Activity	Role Incom- pati- bility*
Roles to adopt which may lead to:					
Roles to give up which may lead to:					
Roles to alter which may lead to:					
Roles to maintain alone which may lead to:					
Roles to share which may lead to:					

\*Definitions: Role Conflict – Personal or interpersonal conflict from combining roles which differ from those traditionally held.  
Role Incompatibility – Frustration experiences from trying to meet demands of non-harmonious roles at the same time.

### SUMMARY

When a major role shift is made by one family member, the roles of other family members will also be influenced. Families can learn to recognize role shifts and their possible stress-producing outcomes. When they do they are better equipped to restructure family roles so as to minimize stress during transition periods. Educators can help families learn to identify role changes and to develop ways of preventing these changes from becoming family crises. One approach to this educational challenge that has been presented here is an exercise for the recognition and appraisal of role shifts.



Cooperation is the key

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3. Burr, Wesley R. *Theory Construction and the Sociology of the Family*. New York, John Wiley and Sons, Inc., 1973.
4. Lukton, Rosemary Creed. "Crisis Theory: Review and Critique," *Social Service Review*, September 1974: 384-402.
5. Lazarus, Richard H. "Cognitive and Personality Factors Underlying Threat and Coping," *Psychological Stress: Issues in Research*, ed. Mortimer H. Appley and Richard Trumbull, New York, Appleton-Century-Crofts, 1967, Pp. 151-168.

### EDITOR'S NOTE:

1. The directions and charts used in the "Exercise in Appraising Role Shifts" may be mechanically reproduced and this reproduction used to make dittos or transparencies.
2. The four cartoons used in this article have been printed again in larger size on pages 291 through 294. They may therefore be used to make transparencies for use in classroom discussions.





More women are going to work

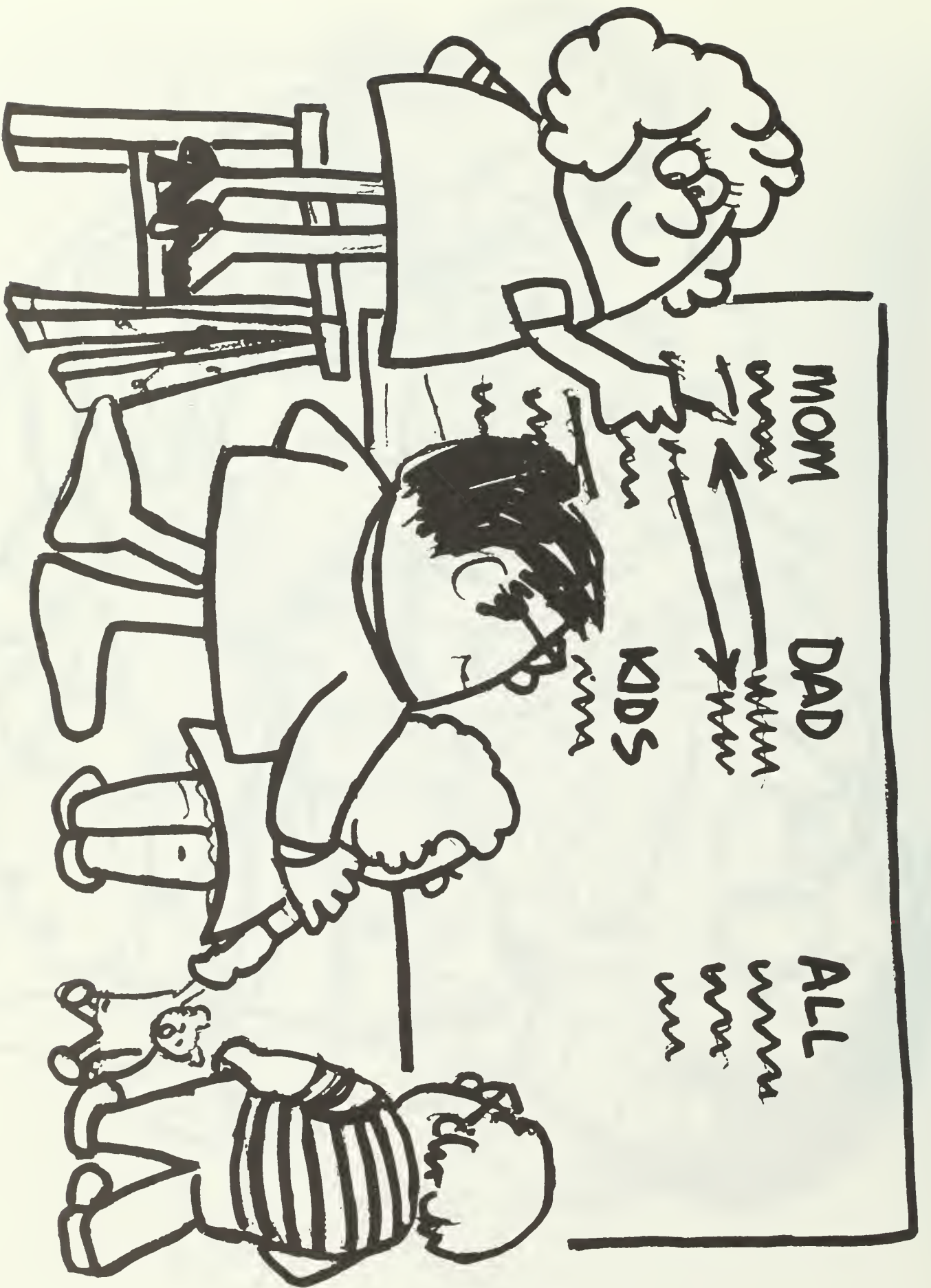


Conflicting demands generate stress



Father's role is changing





Cooperation is the key

# A UNIT ON THE DUAL CAREER FAMILY:

## SUGGESTED ACTIVITIES

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Families in which both the husband and the wife pursue professions outside the home are increasing in prevalence. It is likely that many of today's teenagers and young adults will eventually engage in a married lifestyle which includes the employment outside the home of both husband and wife, either continuously or on a part-time basis. Thus, examination of the obstacles and satisfactions of this family-work pattern would seem to be a relevant learning task for contemporary students.

### Gender Roles and the Dual Career Family

Holmstrom<sup>1</sup> points out that the current equation, in our culture, of masculinity with superiority creates an obstacle for the dual career family. Traditional sex-role stereotypes assign to the male those activities which our culture deems more prestigious, having higher status, more valuable in terms of societal contribution, more intellectually stimulating, etc. Traditional expectations dictate that it is the man who has the primary profession or wage-earning role and the woman the primary homemaking responsibilities. A blurring of these roles can be seen in many dual career families. While this may work out quite well for these families within their intimate family structure, they still face many environmental sanctions.

With this in mind, it seems worthwhile to preface a unit on the dual career family with a lesson focusing on gender differences and sex roles. Students might be asked to discuss the concepts of masculinity and femininity, attributing to these concepts the objectives they feel characterize each gender. The teacher could then lead into a discussion of the common cultural stereotypes of men and women using sources such as "What We Know and Don't Know about Sex

Differences," (Maccoby & Jacklin, *Psychology Today*, Dec. 1974) to shift myth from fact. The desired learning outcome of this lesson is that the students be able to differentiate between innate and socialized sex differences and to understand the ways that narrowly and rigidly defined gender roles can limit growth for both sexes.

### Work Patterns for Women

A second lesson might focus on the work patterns of women in our culture. Rapoport and Rapoport<sup>2</sup> mention three such patterns: the conventional pattern; the interrupted pattern; and the continuous pattern. A woman who leaves paid employment when she marries or has children and engages only in full-time homemaking would typify the 'conventional' work pattern. In the 'interrupted' pattern the woman stops working when her children are small but returns to paid employment eventually (e.g., when the children are in school). The 'continuous' work pattern describes the woman who interrupts work outside the home only minimally when she has children.

A panel discussion made up of women exemplifying each of the above work-family patterns can be an excellent way for students to identify the satisfactions and strains of each lifestyle. If the women are unable to come to class, perhaps an outside assignment for students could be to interview women engaged in each of these lifestyles and to share the findings with the class. Structured interview forms could be used so students would be obtaining similar types of information for later in-class comparison.

### The Male Perspective

The perceptions of males experiencing various life-

styles seems to logically follow as the topic for a third lesson. Men have traditionally engaged in the 'continuous' work pattern. But in families where the wife has gone back to work, this shift has not taken place in most instances without support from the husband and without significant effects on his activities.

A panel discussion, this time with the husbands of the women who have given their views or with other married men sharing their feelings and experiences, would certainly highlight the lesson. Male faculty members might serve as excellent — and available — resource persons for this panel.

#### Children in Dual Career Families

Children add complexity to any relationship. However, for the dual career couple, the situation is usually more complex than that of the conventional family system where the mother is home with the children. Employed parents must find competent persons and satisfactory child care facilities for their children. Work schedules may require some juggling in an attempt to minimize the need for outside parent substitutes. Because our society offers few institutionalized solutions, each working couple must usually make individual arrangements based upon their particular schedules, the ages of their children, their incomes, etc.

An in-class activity related to this concept could be small group discussions where students are given mock family structures (e.g., father is a librarian, mother is an elementary teacher, there are two children ages five and one, etc.). Students study their "family" and arrive at a child care solution appropriate for that "family's" needs. The solutions are then

shared with the total group. A study of community child care facilities should certainly be a part of this unit if the topic hasn't previously been studied. Field trips could be arranged to daycare and nursery school programs.

#### The Marriage Relationship

The marriage relationship and family atmosphere of the dual career family could be the focus of another lesson if the teacher feels it hasn't been fully explored in the previous lessons. Division of labor within the home may be discussed. Checklists are available in many family life source books on topics such as "Sex-Role Expectations in Marriage" or "Working Wife and Mother" and can be used to stimulate discussion. Role playing can also be used effectively in this situation.

#### Is the Dual-Career Family Structure for Me?

A final lesson may focus on summarizing the advantages and disadvantages of the dual career system. Students might also brainstorm to identify needed changes in society that would facilitate the dual career lifestyle. Finally, students may clarify their own feelings on the topic by writing a paper answering the question, "Is the Dual Career Family for Me?"

#### Selected References

1. Holmstrom, Lynda L. *The Two Career Family*. Cambridge, Mass.: Schenkman Publishing Co., 1973.
2. Rapoport, R. and Rapoport, R. *Dual-Career Families*. Baltimore, Md.: Penquin Books, 1971.

#### WHAT ANOTHER PROFESSION IS DOING

A professional association, The National Council of Teachers of English, has established the Committee on the Role and Image of Women in the Council and the Profession. This committee has published four pamphlets which contain information useful to all of us concerned with confronting sexual bias.

- Guidelines for Women's Studies, Grades 1-12, A Preliminary Version
- Guidelines for Combatting Sexism in Language
- Guidelines for Confronting Attitudes that Penalize Women

#### — Guidelines for Publications

Single copies of these guidelines are available free of charge by writing to:

National Council of Teachers of English  
1111 Kenyon Road  
Urbana, Illinois 61801

Get a copy! Share it with your colleagues who are English teachers.

JB



# PREPARING FOR THE DUAL ROLE

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The multiple roles expected of women in the home and in a career are now more of a reality than ever before, partially due to the effects of inflation. In a recent report from a national random survey, Staff Builders Inc. included these highlights:<sup>1</sup>

1. 75 per cent of the nation's housewives are working wives.
2. 74 per cent of the working wives say they could not maintain their current standard of living if they stopped working. (57 per cent said their salaries pay for necessities only.)
3. 47 per cent became two-income families in the past two years.

Economic necessity is certainly not the only reason for both husband and wife working, however. Many women work because they enjoy satisfying careers outside the home. Ceasing to function in these careers because of many home and family responsibilities is not always the desirable thing to do.

Combining job and home responsibilities demands adjustment, usually for all the family members involved. When either the husband or the wife has an outside career and still must maintain the home and children, planning and cooperation between the spouses are most important. Educators in home economics are well prepared to teach units regarding the many aspects of dual role fulfillment.

## GETTING INVOLVED

A teacher wishing to get involved in this area might begin by asking herself these questions:

1. Do I present my unit directly from the text — or do I involve students in planning a project? The importance of student involvement cannot be over-emphasized if students are to believe they are a part of the educational scene.

2. Do I feel excited about my purpose in presenting a unit including dual role management — or is it just another chapter to get through? Perhaps more thought could be given to the validity of our "traditional values" and how they will apply in the 1980's (only five years away.)
3. Do I use any of the countless resources available on the subject? Many periodicals have monthly columns for the working woman. Numerous studies, activities, and projects have been developed for a teacher's use. Time needs to be provided to read about new ideas being used effectively; many of these ideas can be utilized in the classroom.
4. Do I seriously consider just how many of my students contemplate marriage in the near future? The right of remaining single will be increasingly accepted for men and women. The thought of planning for dual role responsibilities might have a different meaning for some students.

## START PLANNING

Students should have the chance to study methods of successfully combining a career outside the home in harmony with the tasks of homemaking. How will they cope with the responsibilities of their job position plus housecleaning, marketing, mending, and meals? What about babysitters or after-school supervision? Through organization, sensitivity, and forethought, the load of many dual role responsibilities can be lightened.

To make the unit relevant and helpful, the cases, problems, and projects should be realistic. Some suggestions for beginning activities might be:

1. Students could play *Woman-Man*<sup>3</sup> a game rigged so that the woman usually loses! You'll hear some lively discussion during this activity.
2. Students might be asked to relate experiences of how their families operate when both parents work. (When the student is hesitant, it's probably not wise to pursue the point.) Some of the most worthwhile ideas can come from student's ideas and suggestions.
3. Students might ask a dual role family to keep a diary of their daily activities for a few days to help identify different lifestyles.
4. Dual role families might be invited to speak openly about how they spend their time and how they organize responsibilities.
5. Having students write solutions to simulated (or real) case problems or having them perform role-playing situations composed by the class or the teacher can be effective. A teacher experiencing the dual role responsibilities could, from experience, write case studies to be solved. Individuals may also benefit from solutions developed by brainstorming and discussion of various ways to deal with the case situations.

#### AN EXAMPLE

Listed below are sample activities included during an 18-week course at Gladstone High School near Portland, Oregon.<sup>2</sup>

1. All students participate in a wedding. The class selects who will be "married" and then plans the wedding.
2. The students who do not plan to marry, pair off with a "roommate" to go through the planned activities.
3. Each couple brings a child under school age to class. They take complete care of the child just as the parents would. They also take the children to the zoo; and over the Christmas holidays, each couple takes "their child" to a Toyland.
4. Students are assigned to watch a TV soap opera. They then comment and discuss the various characters, problems, and how situations might be better managed.
5. One day a week, the boys cook lunch for the girls; on another day, the girls cook for the boys. The couples designate their own responsibilities — who will cook, plan the menu, get the food, and clean up afterward.
6. As a group, they all visit divorce court.

In addition to these activities, various guest speakers present realistic aspects in regard to:

1. Planned parenthood
2. Vocational advice

3. Cost of credit financing
4. Family Counseling
5. Child care centers

The students are receptive to these activities at this high school; the course has been successful in introducing the students to dual role expectations.

#### IN SUMMARY

Teachers desiring to make their course unit more relevant might want to consider:

1. Becoming aware of current trends and establishing a valid base for guiding the activities decided upon;
2. Establishing realistic guidelines for the unit, but being flexible enough to allow the activities to be developmental;
3. Introducing the students to a variety of opinions and methods of budgeting time, money, and responsibilities;
4. Listening to the students. Their involvement in establishing projects and answering problems will determine the success of the unit.

#### REFERENCES

1. Staff Builders, Inc., an employment agency, in the News Gazette, September, 1974, released through UPI, New York, printed at Champaign, Illinois.
2. Irma Penwell, Family Life Instructor at Gladstone High School, Gladstone, Oregon, in personal communication, November, 1974.
3. *Woman-Man—the Classic Confrontation*, A Psychology Today game, 1971, Communications/Research/Machines/Inc., Del Mar, California.

#### OTHER ARTICLES USED IN DEVELOPING GENERAL IDEAS

1. Ruth Van Doren, Director of the Human Relations Center, the New School for Social Research, New York, NY addressing the Illini Symposium for Women, October 31, 1970.
2. Letty Cottin Pogrebin, "The Working Woman," *Ladies Home Journal*, 88, August 1971, p. 54.

#### WOMAN-MAN The Classic Confrontation

*A Psychology Today game, 1971*

Communications/Research/Machines/Inc.  
Del Mar, California

#### *Aim of the Game*

Each woman must accumulate 100 Status points to prove her equality (and possibly superiority) to men . . . while each man must collect 100 Status Quo points to prove that a woman's place is where it has always been — at the bottom! Women are at a distinct disadvantage. They begin with fewer points and have a harder time collecting points than the man. But it can be done!

The game plays to stereotypes; but by confronting myths and assumptions about the sexes and their traditional roles, perhaps we can begin to be free of them.

Approximate Cost: \$7.00

# TEACHING ABOUT ROLES: EMPHASIS ON STUDENT INVOLVEMENT



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and

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(and son Christian)



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An ideal place for students to learn about the increasing variety of roles which may be chosen by family members is in Home Economics classes. We, in Home Economics Education, are committed to preparing people for roles in society and in families.

At the Eleventh Lake Placid Conference much discussion centered around the definition of "family." One suggestion that was made went like this: "A group of people that has a present, a past, and a future together." The definition, of course, includes possibilities other than Mom, Dad, and the current 1.9 children. However, another fact which we are hearing from the Census Bureau is that a greater proportion of the population is living alone. Is this a family?

It seems, upon reflection, that most, if not all, of the major concepts of home economics apply to single persons living alone as well as to groups of various sizes living together. Interpersonal relationships are certainly important in places other than the home. Nutrition is especially important for people living alone. Competency in child development can be useful when relating to grandchildren, nieces and nephews, neighborhood children, children of friends, or children that one contacts on the job.

Looking back to the definition of family as a group that has a present, a past, and a future together, we may decide that this "togetherness" does

not necessarily mean that the group members are living together. When students are learning about roles of family members, one of the first topics for discussion may be: define "family."

This introduction about the definition of family provides some background for the teaching suggestions which follow. Students learn in a variety of ways. However, to learn requires that the students be involved in the teaching-learning process. One technique, pioneered by Richard Suchman, which helps to increase the level of student involvement, is called discovery or inquiry. This technique has been featured in the suggestions given here for the first two concepts, changing role and dual role. The approach can certainly be used in teaching about other topics; likewise, teachers may select other techniques for developing the concepts dealt with here.

## DEFINITIONS

*Changing Roles* — the new developments in activities and responsibilities of both men and women in the world of work and in the home. Freedom of each sex to do many things considered inappropriate for that sex in the past is a major factor.

*Dual Role* — characteristic of a man or woman who works as a wage earner and who is, at the same time, a homemaker.



*Inquiry or Discovery Method* — a technique that helps students think and develop their own ideas. Students will become more independent in looking for answers and solutions. The method is charac-

terized by an emphasis on the use of questions asked by students to obtain answers from many resources and persons which will help solve problems and clarify issues.

### CONCEPT: CHANGING ROLES

#### QUESTIONS TO GUIDE STUDENTS' INQUIRY

1. What is meant by the traditional role of women? the traditional role of men?
2. In what ways do these traditional roles seem to be changing?
3. How have changes in roles of family members affected you in the last few years?
4. Do you think your role in society will be different from that of your mother? Your father? In what ways?
5. How will a different role for you affect your needs for education, job training, and preparation for home and family management?
6. Do women need to be "liberated"? In what ways?
7. Do men need to be "liberated"? In what ways?
8. In what ways may the changing roles of family members in our society affect the rearing of children? How do you feel about this?
9. Are there certain roles that are appropriate only for men? Only for women? Or should the individual choose?

Students and teachers can work together in class to add questions to this list. New questions will develop from the responses to the original questions. The teacher needs to guide the students in the inquiry process, in deciding if the questions will help gather the desired information, and especially in identifying significant ideas, trends, and guidelines from the results of the inquiry process.

Some suggestions for possible settings for the inquiry process are given below. Other suggestions for exploring the concept "changing role" are also included. Some of these can make use of the ideas and information gathered through inquiry. Check off and use the ones that appeal to you.

### SETTINGS FOR STUDENTS' INQUIRY

\_\_\_\_\_ Interview women who are homemakers and career persons.

\_\_\_\_\_ Interview men who are homemakers and career persons.

\_\_\_\_\_ Interview men and women in various occupations:

- machinists
- repairmen
- lawyers
- realtors
- retailers
- teachers
- mechanics
- factory workers

- telephone installers
- janitors
- florists
- bankers

\_\_\_\_\_ Interview family members

\_\_\_\_\_ Interview family friends and neighbors

\_\_\_\_\_ Interview fathers and mothers to determine how they see changing roles affecting the rearing of children.

\_\_\_\_\_ Explore newspaper want ads under employment opportunities. What trends can be identified?

\_\_\_\_\_ Ask people to describe their lifestyle, verbally or in writing.

\_\_\_\_\_ Write a short play illustrating changing roles.

\_\_\_\_\_ Develop and role play some family situations illustrating changing roles, attitudes of others towards changing roles.

\_\_\_\_\_ Write a short story describing a fictional person's lifestyle as a family member living alone, living with friends, or living with a spouse. BUT, pretend the year is 1995!

\_\_\_\_\_ Use the myths given in the materials from the U.S. Department of Labor on page 312 of this issue of the *Illinois Teacher* as topics for student debates.

### CONCEPT: DUAL ROLES

#### QUESTIONS TO GUIDE STUDENTS' INQUIRY

1. What does the phrase "dual role" mean?
2. What are the problems and the rewards for the working mother of young children? For the father?
3. What are possible effects on children when both the mother and the father are employed outside the home?
4. In what workable ways do you believe the father's traditional role in child care and care of the home can, or needs to be, changed?
5. Do your beliefs about employment of both parents differ from those held by your parents? Your children? In what ways?

## SETTINGS FOR STUDENTS' INQUIRY

Many of the settings described under CONCEPT: CHANGING ROLES are also appropriate for CONCEPT: DUAL ROLES. In addition, consider these:

\_\_\_\_\_ Interview husbands in the following circumstances whose wives work outside the home:

- newly married
- college students
- one child

- more than one child
- children at different ages
- middle-aged, children "launched"
- near retirement
- retired, wife still working

\_\_\_\_\_ Interview working wives in the above categories.

\_\_\_\_\_ Interview children of various ages who live in families where both parents work; where only the father works.

## IDEAS FOR THE CLASSROOM

### Questions for Discussion

Many teen-agers are more interested in what their peers believe than they are in the beliefs of teacher or parents. Examining one another's view during class activities can help students clarify their own uncertainties and help them develop a workable system of values for themselves.

In helping teen-agers examine their views concerning roles of men and women and of boys and girls, a variety of teaching techniques are appropriate. The discussion is one technique that may be used frequently. Students are often more easily involved when verbally sharing their feelings, beliefs, and attitudes than they are when asked to share factual information.

According to *Webster's New World Dictionary of the American Language*, discussion is "talk or writing in which the pros and cons of a subject are considered." Further, a discussion "implies a talking about something in a deliberative fashion, with varying opinions offered constructively and, usually, amicably, so as to settle an issue, decide on a course of action, etc." Connie Sasse stated this well in an article titled "Discussion: An Oft-Abused Potential for Learning" (*Illinois Teacher*, XVI:4, March-April 1973). "In order to use the discussion technique in the classroom, the topic under consideration needs to

be one that has pros and cons, or at least has more than one 'correct' answer" (p. 304). The issues related to the topic, Human Roles, certainly have their pros and cons and have lots of "correct" answers.

Review the entire article by Sasse. Many other helpful suggestions are made and at the end of the article the major points are summarized in a rating scale for teachers' use in evaluating classroom discussions.

The following suggestions are just a beginning in identifying issues and stating them in a question form that makes them "discussable." Have your students identify issues and develop questions. Gather ideas from the many articles in this issue of *Illinois Teacher* and from other sources.

- (1) What is sex-role stereotyping and how does it affect human roles?
- (2) What can women do if they believe they are paid less than men for equal work?
- (3) Should women break their careers during the child-bearing and child-rearing period?
- (4) What does the phrase "self-fulfillment" mean to you? How do you believe it can best be achieved?

JB



# DOUBLE DUAL ROLE: A LESSON PLAN

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DOUBLE DUAL ROLE — characteristic of a *single* man or woman, (widowed, separated, divorced, or never married) who is wage earner, homemaker, and parent. There is the double responsibility in this parenting role of being both mother and father to the child or children.

In the previous article, "Teaching about Roles: Emphasis on Student Involvement," suggestions were given which could be used to help students develop meaning about two concepts, CHANGING ROLES and DUAL ROLES. The emphasis was on the teaching-learning technique of discovery or inquiry.

A third concept which may be introduced is something we have described as the double dual role. The person in this role is not only a wage earner and a homemaker but is also a single parent who is assuming the role of both mother and father to the children. This person has two types of dual roles, a DOUBLE DUAL ROLE.

When a teacher chooses to include this concept in a unit on Human Roles, it is necessary to think carefully about the attitudes and values of the community and school, of the students, and of the teacher. The teacher does not want to appear to be saying, "Divorce is to be expected. Prepare yourselves, gang!"

Also, when including this concept, one needs to carefully consider the needs and circumstances of the students. Therefore, one must be familiar with the background of the students. If a student is from a one-parent home, whatever the reason, there may be emotions and feelings that student has which could make certain approaches to a classroom examination of the topic of "double dual role" uncomfortable for him or her.

With adequate preparation and forethought, however, this topic can be successfully included as part of classroom instruction. There are strong arguments which support including a discussion of this topic. Numbers of single heads of households, numbers of deaths of parents with dependent children, divorce statistics, and numbers of women and men having and caring for children outside of marriage can illustrate

this. So, if you believe there is a need for examination of this topic, orient your own thinking and review and use the suggestions offered below.

## CONCEPT: DOUBLE DUAL ROLE GENERALIZATIONS

1. There are various kinds of families; a family may be defined as a functional unit of interacting personalities with shared resources, and often with shared habitation.

2. Family members have varying roles. These roles may be played by husbands, wives, children, and others such as grandparents or other relatives living with the family.

3. The double dual role refers to one person who has a combination of roles: homemaker, wage earner, and both mother and father.

4. There are many families in the United States in which the head of the home is in the double dual role.

5. In double dual role situations the concerns that commonly occur are: financial needs, emotional needs, and legal needs.

6. The needs and concerns of those in the double dual role may be dealt with positively if all family members cooperate in decision making.

## OBJECTIVES

1. Describe various kinds of families and the varying roles of different families and family members.

2. Develop, as a group, a definition or definitions of "family."

3. Define double dual role.

4. Identify the needs and concerns of people in the double dual role.

5. Explore measures that can be taken to deal with these needs and concerns; select those that seem

most workable in various situations.

6. Determine the roles a teenager can play in helping a parent deal with the double dual role.

### LEARNING EXPERIENCES

1. Show film "Sylvia, Fran and Joy." (see film list, p. 309.)

2. Read materials in books available in the department or library on the double dual role or one-parent family. (see book list, p. 308.)

3. Develop a descriptive list of as many different kinds of families as possible.

4. Make a collage which portrays different kinds of families.

5. Make a collage which the students feel portrays the double dual role, its problems and concerns.

6. Invite a speaker such as a divorce counselor, marriage counselor, or a person in the double dual role to speak to the class about the needs and concerns of divorced and widowed people and how they deal with their problems.

7. Organize a panel discussion: "What can students do to understand and help parents deal with family situations, particularly the double dual role?"

8. Invite outside speakers who are experiencing double dual role situations to share their experiences.

9. Class members who have a parent in the double dual role situation may be willing to relate their feelings about the situation. Caution: Avoid embarrassing anyone.

10. Role play various situations illustrating the problems and concerns of the double dual role family to stimulate and focus class discussion. Small groups of students (two to four) could be responsible for investigating the needs and concerns and portraying these. Specific emphases could be on:

- a. The needs and concerns of children; of teens.
- b. The needs and concerns of a father.
- c. The needs and concerns of a mother.
- d. Teenager asking parent of opposite sex about matters traditionally believed to be best handled by parent of same sex.
- e. Daughter needing father for a Father-Daughter

Banquet; there is no father present.

f. Verbal interaction between a parent and a child concerning their grief and how each feels about the loss of the other spouse and parent.

g. Discussion of finances when the father (or mother) has left little or no insurance upon death.

### SUGGESTIONS FOR EVALUATION ACTIVITIES

*Objectives 1 through 5* Keep a log of class activities which have dealt with the double dual role and add suggestions, ideas, and thoughts.

*Objective 1* Prepare a chart or paper identifying kinds of families and varieties of roles played by family members. The teacher may limit the number of families or ask students to consider only their neighbors, relatives, etc.

*Objective 2* Write a definition of "family." Then participate on one of several class committees which will work with these definitions in an attempt to reach some consensus of opinion.

*Objective 3* Write two or three short stories describing family situations which illustrate the double dual role. (These may be fictitious.)

*Objectives 4, 5, and 6* During the various learning experiences, keep a sheet of paper, titled on the left half "Needs, Concerns, and Problems," and on the right half "Solutions," on which notes can be made as guests speak, situations are role played, materials are read, etc.

*Objectives 5 and 6* React to case studies developed by the teacher or a small committee of students. These will depict a family in the double dual role which has a specific need, concern, or problem that requires a solution. (Some situations suggested for the role plays may be used.)

*Objective 6* Use one of the stories written to evaluate Objective 3 or write another if none of those family situations include teenagers. Add to the story to illustrate several ways in which teenagers can help a single parent cope with the double dual role.

### A USEFUL PUBLICATION

The Citizen's Advisory Council on the Status of Women each year submits an annual report to the President of the United States. These reports, which contain much useful information in an easy-to-read style, are for sale by the Superintendent of Docu-

ments, U.S. Government Printing Office, Washington, D.C. 20402. The most recent, *WOMEN IN 1973*, published in May, 1974, costs \$1.30. Stock number 5229-00011. Another one should be available soon.

JB

# ROLE CHANGES:

## A PLAY FOR CLASSROOM USE

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### TITLE: ROLE METAMORPHOSIS

*SETTING: Dinner table — Friday night*

*CAST: Husband — Bill*

*Wife — Anne*

*Daughter — Sue (Junior in High School)*

*Son — John (Senior in High School)*

**Bill:** Well, Mother, how are you coming with finding a job?

**Anne:** That's the good news I said I would tell you during dinner.

**John:** I have good news, too. I'm going to start work at the drive-in, frying hamburgers.

**Sue (Giggling):** Oh, that's funny — you frying hamburgers!

**John:** Whether you think it's funny or not, I'm doing it and what's more, I like the idea! Besides it wouldn't hurt you to get a job too. With me graduating this year and you next year and both of us wanting to go on to school it won't hurt either of us to start earning money so we can pay for some of the school bills.

**Sue:** Well, you big smartie! It just so happens I'm going to work, too. I have been accepted at the discount store. I start work next week.

**John:** Guess that will cut out your fooling around at the drive-in every night after school.

**Sue:** All you do is gripe! Ask Mom. I've been coming home and helping around the house in the afternoons.

**Anne:** That's right, John. You forget Susan is growing up.

**John:** You mean she wants us to believe she is.

**Bill:** John, that's enough! Let's get back to Mother's news. Tell us about your job.

**Anne:** I'm afraid mine is the biggest surprise — my job is a telephone installer. They will train me on the job. I'll spend three months working with another installer.

**John:** Oh, for Pete Sakes, Mom, is that kind of job necessary? I don't want to tell my friends my mother is a telephone installer.

**Bill:** We all agreed it would be great if you got a job but is this what you wanted? It's funny Sue didn't try to get a job pumping gas.

**Anne:** Just a minute now! It's time you two start to realize times are changing. Women are beginning to do many jobs that were once considered strictly men's jobs. Why should women be denied these jobs just because they are women? What's important is that they can do the job. No one denies that a man or a woman should have a job if they can't handle it.

**Bill:** I guess that makes sense but it will take some getting used to!

**John:** It sure will! I can just hear the guys now.

**Sue:** I think it's neat! John, you are just so chauvinistic.

**John:** Listen to the big words!

**Sue:** You're just mad because you don't know what it means. I'll tell you this much — you are IT!

**John:** I know what it means. I still like opening doors and pulling out chairs for my girl friend.

**Sue:** Wish you'd act that way around home.



Anne: All right you two, that's enough! Dad mentioned getting used to my job and that reminds me, there will be some other things that you will have to get used to, also.

John: Like what!

Anne: Well, when I work full time, the work at home will have to be shared. After all, when one helps to bring the bacon home then one should have some help frying it!

Bill: This is going to be different. But you're right. We'll work out a schedule. Sue and John can help, too.

John: I go to school and have a job besides.

Sue: I do, too. I'm in school till 2 and I'm to work Saturdays and Sundays.

John: I work every night after school from 4 to 10 P.M.

Anne: What time do you get out of school, John?

John: At 2, but I have to study.

Anne: I agree, you need time to study. Sue does, too. But that's why we will have to work out a schedule so we can see what everyone can do to help at home.

Bill: Remember you mother and dad are working full time and have to come home and do some of the work so that everything will run smoothly. It just means that everyone will have some assigned jobs that must be done every week and everyone can pitch in when circumstances call for it.

Anne: We will make a schedule and everyone will be assigned certain jobs and in some cases you men may

think you're doing woman's work. That attitude will have to change too.

Bill: I agree, I think. I volunteer right now to do most of the cooking. I always did like to putter around the kitchen so I'll take on the meal planning, grocery shopping and meal preparation.

John: We'll starve to death! Mom, get him to do something else.

Sue: No, I think it will be fun to see how he does. I will be the second volunteer. As Dad said, he was surprised I didn't get a job pumping gas. Well, I have always been interested in cars so I will keep up the family cars. I will also help with the yard and keeping the garage decent. I never did care for housework.

Anne: What do I hear from you, John?

John: Oh, brother! What a mess! OK! OK! I'll do my share. I haven't heard anyone volunteer for cleaning so I guess I'll do that. I hate a messy house, but Mom, will you clean the bathrooms? I just hate cleaning bathrooms.

Anne: Yes, John, I will clean the bathrooms. It looks like this leaves me with washing and ironing. I can handle that.

Bill: I'll continue to pay the bills and do the income tax.

Anne: Everyone will keep their own rooms clean and if everyone does what they say they will do, this should work out. I'll make a schedule tomorrow.

John (Leaving table): Tomorrow for dinner it will be burned hamburgers, scorched potatoes, dry bread — Oh, I can't stand to think about it!

An exercise I do with student teachers-to-be to help them identify and clarify their philosophy of education is to draw a picture of a teacher in a classroom. It's very enlightening, especially to those of us faculty-types! Try the idea with your students. Ask them to draw a kitchen, a person in a kitchen, a little boy playing, a little girl playing, a person driving a

car, someone mowing the lawn, a judge, a doctor, a teacher, a nurse, a telephone operator, a mechanic, a scientist, a construction worker, a garbage collector, a grocery shopper, etc. Try it with every student working on the same topic; another time, assign each student a different topic. (Don't "grade" for artwork!)

JB

# SOURCES OF MATERIALS FOR FURTHER LEARNING AND PLANNING

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#### FILMS

There are films available that could aid in introducing or discussing the area of changing roles or dual roles. Some of these films are listed below.



*"Other Women, Other Work."* 20 minutes. Color. Rental \$9.50

Six people are shown working and discussing their work. They are of different races and have one thing in common — they are all women. The occupations they are involved in include journalist, carpenter, diver scientist, truck driver, veterinarian, and pilot.

*"Sylvia, Fran, and Joy."* 20 minutes. Black and White. Rental \$8.00

Three young women from middle class backgrounds discuss how they feel about the domestic role of wife, mother, and homemaker. Sylvia has a dual role and is working out the sharing of these roles with her husband. Fran is separated from her husband and is striving to find a new life and identity. The traditional role of homemaker-wife-mother is played by Joy who seems to accept the role without question. The film should produce a lively discussion.

*"Take This Woman."* 25 minutes. Color. Rental \$20.00

Equal employment opportunity is the focus of this film. Cases, judicial decisions, and expert's opinions are cited to show that women have been denied career, promotional, and educational opportunities. Views on the women's liberation movement are voiced by Aileen Hernandez of the National Organization of Women, Congresswoman Yvonne Brathwaite, Judge Joan Dempsey Klein, and Chancellor Charles E. Young of U.C.L.A. It asserts that forty percent of women are employed outside the home and that the majority work at menial, low paying jobs. The talents and energies of over half the population are not being used to the fullest potential.

The above three films are available from:

Visual Aids Service  
University of Illinois  
Division of University Extension  
1325 S. Oak Street  
Champaign, Illinois 61820

*"Together Sweetly."* 15 minutes. Color. Rental \$20.00.

What happens in a marriage when a wife gives up her identity to please and serve her husband is presented from a feminist point of view.

Polymorph Films  
331 Newberry Street  
Boston, Massachusetts 02115

*"Women and Careers."* 18 minutes. Color. Purchase. 16 mm. — \$210.50; 8 mm. — \$150.50.

A film showing four women in different jobs. The women discuss their jobs and why they like them, the attitudes of their families toward their jobs, and ways in which they began their careers. It encourages expanding the place of women in the world of work, for her to grow, become a contributing individual, and to try any field for which she feels suited.

Doubleday Multimedia  
1371 Reynolds Avenue  
Santa Ana, California 92705

*"Women's Rights in the U.S. — An Informal History."* 27 minutes. Color. Purchase or Rental (purchase \$375; rental \$40, requires 5 weeks notice).

A fascinating film, smoothly organized, to give a clearer understanding of women's movements today. Pictures are all contemporary. There are satiric cartoons which have not been seen before in materials on this subject. Actual speeches, diaries, letters, newspaper reports, are used in a lively exchange of ideas between feminists and anti-feminists.

Atlanta Films  
340 East 34th Street  
New York, New York 10016

*Family Life Literature and Films: An Annotated Bibliography.* 1972. \$6.50.

This is a new, enlarged, fully updated edition. It contains new sections on "Alternative Life Styles and Experimental Family Patterns," "Abortion," "Homosexuality," "Self-Growth and Human Potential," and others.

*Supplement to Family Life Literature and Films: An Annotated Bibliography.* 1974. \$5.00.

This publication is designed to accompany the 1972 edition and contains updated references in most sections. It contains new sections and includes such topics as audio-visuals on death, venereal disease, mental health, etc. The section on male and female roles is enlarged and includes history of women, sexuality, sex roles, women's health, and economics of women in the labor force.

The above publications are available from:

Minnesota Council on Family Relations  
1219 University Avenue S.E.  
Minneapolis, Minnesota 55414

(When the Bibliography and Supplement are ordered together, the cost is \$10.)

# CITIZENS' ADVISORY COUNCIL ON THE STATUS OF WOMEN

## WHAT IT IS AND WHAT IT DOES\*

The Citizens' Advisory Council on the Status of Women, composed of 20 private citizens was established by Executive Order 11126 on November 1, 1963. Each member is appointed by the President of the United States and serves without compensation for an indeterminate period. The Council was first chaired by Miss Margaret Hickey, then Senator Maurine B. Neuberger, and its current chairperson is Lt. Col. Jacqueline G. Gutwillig.

The Council's primary functions are to:

- Serve as a primary means for suggesting and stimulating action with private institutions, organizations, and individuals working for improvement of conditions of special concern to women.
- Review and evaluate progress of organizations in furthering the full participation of women in American life.
- Consider the effect of new developments on methods of advancing the status of women and recommend appropriate action.

The Council issues an annual report to the President and throughout the year makes recommendations to the President, to agencies of the Federal Government, to State legislatures, to State and city commissions on the status of women, and to non-governmental and voluntary organizations. The Council's recommendations, supporting papers, and its annual reports are distributed to organizations, State commissions on the status of women, the media, and individuals who have asked to be on the mailing list. Its publications are also distributed at many conferences whose topics are related to the status of women.

It is staffed by a secretariat of two persons whose salaries are paid by the Department of Labor. Space, travel, printing, and other services are also furnished by the Department of Labor.

Some of the significant activities of the Council are:

- The Council, in February 1970, recommended adoption of an amendment to the U.S. Constitution to require equality of rights under the law for women and men. The Council has published six papers on this topic, including a basic legal memorandum undergirding its recommendation with legal theory for interpreting the amendment. The proponents of the Equal Rights Amendment in Congress adopted this theory, and their views will furnish guidance to the courts in interpreting the Amendment when ratified and effective. The Council's papers have been widely used by women working for adoption of the Equal Rights Amendment to educate the public, members of the Federal Congress, and of State legislatures.
- The Council has made recommendations on job-related childbirth leave which provide maximum benefits to employed women within the existing framework of law and the private system of providing fringe benefits in the United States. The Council's paper on this subject and speeches by its chairperson have been used by persons seeking elimination through the courts of discrimination because of pregnancy. The Equal Employment Opportunity Commission, which administers the law prohibiting discrimination because of sex in employment, has included in its guidelines to employers the Council's recommendation on job-related maternity leave.
- The Council published a paper urging local women's organizations to institute studies of sex discrimination in their public schools. The

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\*CACSW Item 43-F, September, 1974. For further information contact: Citizen's Advisory Council on the Status of Women, Room 1336, Department of Labor Building, Washington, D.C. 20210. Telephone 202-961/3791.

Council published a paper covering the following: (1) Why are sex discrimination studies needed? (2) Who should make the reviews? (3) What should be investigated? and (4) What remedial action can be taken?

The Council included in the paper a list of the reports from parent organizations that had already made such surveys and other items that might be useful to persons wishing to undertake a survey.

- "Recognition of Economic Contribution of Homemakers and Protection of Children in Divorce Law and Practice" is the title of another paper published by the Council. Its purpose is to alert women in the United States to the very inadequate protection now provided

and to the unpublicized erosion of such protection by recent changes in State divorce laws. It calls attention to the Uniform Marriage and Divorce Act, a model law proposed by the Commissioners on Uniform State Laws, and recommends that State legislatures adopt as a minimum the economic protections provided.

- The Council has urged that the military services accept women into the services and into the military academies under the same standards as men are accepted. The chairperson testified before the Joint Economic Committee of the U.S. Congress in 1973 hearings on the economic status of women on women as veterans, spelling out the vocational training and other benefits attendant upon military service.

### SEXISM IN LANGUAGE\*

Have you thought about the male and female connotations of the following descriptive words? Do you agree with the sex-related interpretations?

DESCRIPTIVE TERM	INTERPRETATION FOR WOMEN	INTERPRETATION FOR MEN
Forceful	Domineering	Charismatic
Talkative	Gabby	Articulate
Forgetful	Scatterbrained	Absent-minded
Interested	Nosy	Curious
Obstinate	Stubborn	Strong-willed
Angry	Hysterical	Outraged
Ironical	Bitter	Humorous
Efficient	Compulsive	Competent
Talking together	Gossip	Conversation
Devious	Scheming	Shrewd
Lighthearted	Frivolous	Easy-going
Thoughtful	Over-sensitive	Considerate
Careful	Obsessive	Prudent
Dauntless	Brazen	Fearless
Ordinary	Homely	Pleasant-looking
Industrious	Drudge	Hard-working

\*Terminology adapted from "Poster Pull-Out," *Colloquy*, Vol. 6:9, November 1973, p. 22.

Note: Also see "A Vocabulary Guide for Working Women" in the book, *Sisterhood is Powerful*, edited by Robin Morgan.

JB



## THE MYTH AND THE REALITY\*

### The Myth

*A woman's place is in the home.*

*Women aren't seriously attached to the labor force; they work only for extra pocket money.*

*Women are out ill more than male workers; they cost the company more.*

*Women don't work as long or as regularly as their male co-workers; their training is costly — and largely wasted.*

### The Reality

Homemaking in itself is no longer a full-time job for most people. Goods and services formerly produced in the home are now commercially available; laborsaving devices have lightened or eliminated much work around the home.

Today more than half of all women between 18 and 64 years of age are in the labor force, where they are making a substantial contribution to the growth of the Nation's economy. Studies show that 9 out of 10 girls will work outside the home at some time in their lives.

Of the 33 million women in the labor force in March 1972, nearly half were working because of pressing economic need. They were either single, widowed, divorced, or separated or had husbands whose incomes were less than \$3,000 a year. Another 5.1 million had husbands with incomes between \$3,000 and \$7,000 — incomes which, by and large, did not meet the criteria established by the Bureau of Labor Statistics for even a low standard of living for an urban family of four.

A recent Public Health Service study shows little difference in the absentee rate due to illness or injury; 5.9 days a year for women compared with 5.0 for men.

Although some but not all women leave work for marriage and children, a majority of those who leave return when their children are in school. Despite this break in employment, the aver-

age woman worker has a work-life expectancy of 25 years as compared with 43 years for the average male worker. The single woman averages 45 years in the labor force.

Studies on labor turnover indicate that net differences for men and women are generally small. In manufacturing industries the 1968 rates of accessions per 100 employees were 4.4 for men and 5.3 for women; the respective separation rates were 4.4 and 5.2.

There were 19.2 million married women (husband present) in the labor force in March 1972; the number of unemployed men was 3.1 million. If all the married women stayed home and unemployed men were placed in their jobs, there would be 16.1 million unfilled jobs.

Moreover, most unemployed men do not have the education or the skill to qualify for many of the jobs held by women, such as secretaries, teachers, and nurses.

Jobs, with extremely rare exceptions, are sexless. Tradition rather than job content has led to labeling certain jobs as women's and others as men's. In measuring 22 inherent aptitudes and knowledge areas, a research laboratory found that there is no sex difference in 14, women excel in 6, and men excel in 2.

*Married women take jobs away from men; in fact, they ought to quit those jobs they now hold.*

*Women should stick to "women's jobs" and shouldn't compete for "men's jobs."*

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\*U.S. Department of Labor, Employment Standards Administration, Women's Bureau, Washington, D.C. 20210. April, 1973.

*Women don't want responsibility on the job; they don't want promotions or job changes which add to their load.*

Relatively few women have been offered positions of responsibility. But when given these opportunities, women, like men, do cope with job responsibilities in addition to personal or family responsibilities. In 1972, 4.5 million women held professional and technical jobs, another 1.4 million worked as nonfarm managers and administrators. Many others held supervisory jobs at all levels in offices and factories.

*The employment of mothers leads to juvenile delinquency.*

Studies show that many factors must be considered when seeking the causes of juvenile delinquency. Whether or not a mother is employed does not appear to be a determining factor.

These studies indicate that it is the quality of a mother's care rather than the time consumed in such care which is of major significance.

*Men don't like to work for women supervisors.*

Most men who complain about women supervisors have never worked for a woman.

In one study where at least three-fourths of both the male and female respondents (all executives) had worked with women managers, their evaluation of women in management was favorable. On the other hand, the study showed a traditional/cultural bias among those who reacted unfavorably to women as managers.

In another survey in which 41 percent of the reporting firms indicated that they hired women executives, none rated their performance as unsatisfactory; 50 percent rated them adequate; 42 percent rated them the same as their predecessors; and 8 percent rated them better than their predecessors.

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Editor's Note: The information in this government publication was used as the basis of an article which elaborated more on the problems of women in the work force. The title: "A Woman is Only a Woman, But a Good Cigar is a Smoke." Found in: Executive Action Series #147, Bureau of Business Practice, Waterford, Connecticut 06385, c. 1972, pp. 3-23.

### A SOURCE OF CRITERIA

We as home economics teachers have a major responsibility for selecting textbooks and other instructional materials for the teaching-learning process. We need to use our strength and our wisdom in insisting upon materials that can educate all of our children without exception. These materials profoundly affect our students and their learning—how they view themselves and their society, how they view their roles, how they view the future, and how they are motivated to work and play and learn and live.

We need to evaluate textbooks and curriculum materials with dedication, to insure that they meet the highest standards in the subject matter content and in the treatment of minority groups and women. If these standards are not met, the books and materials should be rejected.

Is there a committee in your school or your system that is working to develop guidelines for all teachers to use in the selection of materials and books? If not, ask your librarian and your principal to help form such a committee.

A list of 20 criteria for evaluating the treatment of minority groups and women in textbooks and other learning materials can be found in the journal, *EDUCATIONAL LEADERSHIP*, November 1973, on pages 108 and 109. These criteria will help you or your committee. Another evaluation form can be found in *TODAY'S EDUCATION*, December 1972, page 22. Involve students on the committee. Get started. Today!

JB

## WHY WOMEN WORK\*

Nearly 35 million women are in the labor force today because their talents and skills are needed by the American economy. During the decade 1963 to 1973, some 17 million additional jobs were developed in new or expanding industries. These jobs have provided employment opportunities for nearly 10 million women and more than 7 million men, while permitting a decline in unemployment rates for both men and women.<sup>1</sup>

Women work for the same reasons men do. Millions of the women who were in the labor force in March 1973 worked to support themselves or others. This was true of most of the 7.7 million single women workers. Nearly all of the 6.3 million women workers who were widowed, divorced, or separated from their husbands — particularly the women who were also raising children — were working for compelling eco-

nomie reasons. In addition, the 3.7 million married women workers whose husbands had incomes below \$5,000 in 1972 almost certainly worked because of economic need. Finally, about 3 million women would be added if we take into account those women whose husbands had incomes between \$5,000 and \$7,000.<sup>2</sup>

Among the 4.4 million women of minority races who were workers in March 1973, slightly more than half (53 percent) were single, widowed, divorced, or separated from their husbands; about one-sixth (15 percent) were wives whose husbands had 1972 incomes below \$5,000. In fact, only 25 percent of all minority women workers were wives whose husbands had incomes of \$7,000 or more.

The marital status of women workers in March 1973 was as follows:

<u>Marital status</u>	<u>All women</u>		<u>Women of minority races</u>	
	<u>Number</u>	<u>Percent distribution</u>	<u>Number</u>	<u>Percent distribution</u>
Total	33,904,000	100.0	4,427,000	100.0
Single	7,739,000	22.8	1,053,000	23.8
Married (husband present)	19,821,000	58.5	2,093,000	47.3
Husband's 1972 income:				
Below \$3,000	1,764,000	5.2	264,000	6.0
\$3,000 — \$4,999	1,982,000	5.8	375,000	8.5
\$5,000 — \$6,999	2,676,000	7.9	360,000	8.1
\$7,000 and over	13,399,000	39.5	1,095,000	24.7
Other marital status	6,344,000	18.7	1,281,000	28.9
Married (husband absent)	1,522,000	4.5	546,000	12.3
Widowed	2,484,000	7.3	369,000	8.3
Divorced	2,338,000	6.9	366,000	8.3

\*U.S. Department of Labor, Employment Standards Administration, Women's Bureau, Washington, D.C. 20210. May 1974 (revised)

<sup>1</sup>The possible impact of the energy shortage on women's employment and unemployment cannot be estimated at present.

<sup>2</sup>The Bureau of Labor Statistics estimate for a low standard of living for an urban family of four was \$7,386 in autumn 1972. This estimate is for a family consisting of an

employed husband aged 38, a wife not employed outside the home, an 8-year-old girl, and a 13-year-old boy.

Note. Figures are from the U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics.

Data for minority races refer to all races other than white. Negroes constitute about 89 percent of persons other than white in the United States. Spanish-origin persons are generally included in the white population — about 93 percent of the Spanish-origin population is white.



*Women heads of families.* — Of the 54.4 million families in March 1973, 6.6 million were headed by women. About 3.5 million, or 53 percent, of the women family heads were in the labor force, and nearly two-thirds of these women workers were the only earners in their families. About 1 out of 10 women workers was head of the family. Among the 1.9 million minority women heading families, nearly half were workers in March 1973. More than 1 out of 5 women workers of minority races headed a family.

Nearly 1 out of 3 families headed by a woman had an income below the poverty level in 1972. This was true for more than half of all minority families. For those families headed by women who worked during 1972, however, only 1 out of 5 (nearly 2 out of 5 minority families) had an income below the poverty level. Among families headed by women who worked the year round at full time jobs, less than 1 out of 10 (about 1 out of 6 minority families) was poor in 1972.

*Mothers with husbands present.* — Of the 19.8 million married women (husbands present) who were in the labor force in March 1973, 10.7 million had children under 18 years of age. About 2.8 million of these mothers were helping to support their children. Included were 640,000 mothers whose husbands had 1972 incomes below \$3,000; 819,000 whose husbands had incomes between \$3,000 and \$5,000; and 1.4 million whose husbands had incomes between \$5,000 and \$7,000.

Among the 1.3 million minority women who were working wives and mothers in March 1973, nearly 600,000 had husbands whose 1972 incomes were below \$7,000. Of these mothers, 128,000 had husbands with incomes below \$3,000; 224,000 had husbands with incomes from \$3,000 to \$5,000; and 244,000 had husbands with incomes between \$5,000 and \$7,000.

*Wives whose husbands are unemployed or unable to work.* — In the 46.3 million husband-wife families, there were 1.1 million husbands (more than 100,000 minority husbands) who were unemployed in March 1973, although they were in the labor force and actively looking for work; 7.0 million husbands (nearly 600,000 minority husbands) were not in the labor force. Some 509,000 wives of unemployed husbands and 1.6 million wives whose husbands were not in the labor force were working or seeking work. Many of these women were the sole support of their families.

*Women whose husbands are employed in low-wage occupations.* — In March 1973 there were 600,000 married working women whose husbands were farm workers; another 822,000 had husbands who were nonfarm laborers; and 1.1 million had husbands employed in service occupations. The median wage or salary income of men in these occupations was low in 1972 — \$2,418 for farm laborers and supervisors; \$2,479 for farmers and farm managers; \$4,833 for nonfarm laborers; and \$5,332 for service workers (except private household).

### IDEAS FOR THE CLASSROOM

Have students complete a story based on the following introductions:

Professor A (female) has just had Professor B (male) say to her, "Frankly, I couldn't get much work out of the 3 gals assigned to my project. They're all married and have kids."

After first semester exams, Ann finds herself at the top of her medical school class. (From an earlier *Illinois Teacher*.)

Carol, a wife, a mother of two small children, and a business woman, has been asked to go to an out-of-town meeting for five days.

Mary Elizabeth Smith has been named as the Democratic (or Republican) candidate for President of the United States.

Barbara has accepted full-time paid employment after being a full-time homemaker for 10 years. Her husband refuses to help with household chores, nor does he want a professional cleaning person "snooping around the house."

Alice has been offered a good position in a town 100 miles from her husband's employment.

Tom believes the family needs more income to maintain their desired standard of living and wants Sheila to look for a job.

Two pre-schoolers are playing. Patricia says, "John, you be the mother and get fat so you can have a baby." The children's father overhears.

Mrs. Jones, a teacher, has been told by a neighbor lady that she shouldn't leave her child with a babysitter while she works because the child will grow up with the wrong values.

Employer to prospective female employee: "I don't see how we can pay your moving expenses. However, if your husband gets a job here too, maybe we can pay half."

JB

## *HIGHLIGHTS OF WOMEN'S EMPLOYMENT AND EDUCATION\**

### *Employment in 1973*

**Number** — Nearly 35 million women were in the labor force.

This was 45 percent of all women 16 years of age and over.

Women were 39 percent of the labor force.

**Age** — Half of the women workers were 36 years of age or over.

More than one-third were 45 years or older.

Half or more of the women in all age groups between 18 and 54 were in the labor force.

**Marital Status** — Almost 3 out of 5 women workers were married (husbands present).

Of all married women (husbands present) in the population, 42 percent were working.

**Family Status** — Almost 2 out of 5 women workers had children under 18 years of age.

Of the 13.0 million mothers in the labor force, 4.8 million had children under 6 years.

Working mothers had 26.2 million children, of whom 6.0 million were under the age of 6.

**Occupations** — More than one-third of all employed women were clerical workers. They included more than 4 million stenographers, typists, and secretaries.

Seventeen percent were service workers (except private household).

Fifteen percent were professional and technical workers. They included about 2 million teachers.

Fourteen percent were operatives, chiefly in factories.

The other 31 percent worked part time either part or full year.

**Median Earnings** — Half of the women who worked full time for 50 to 52 weeks earned at least \$5,903. This was only 57.9 percent of the \$10,202 median earnings of fully employed men.

### *Education in 1972-73*

**School and College Enrollments** — There were 28.5 million girls and women between 3 and 34 years of age enrolled in school in the fall of 1973.

Enrollments of women 35 years and over totaled 748,000 in October 1972. Of these students, 420,000 were enrolled in college, 273,000 in trade or vocational schools, and 55,000 in elementary and high schools.

The 4.3 million women of all ages enrolled in college in the fall of 1973 were 44 percent of all college students.

**Educational Attainment** — The 24.1 million women workers 16 years of age and over who had at least a high school education in March 1973 represented 71 percent of all women workers. They included 15.3 million women who had completed high school but had no further education, 4.7 million who had some college education but no degree, and 4.1 million who had graduated from college. About 1 out of 8 women workers had graduated from college.

### *Employment Patterns and Earnings in 1972*

**Employment Patterns** — More than 42 percent of women workers worked full time year round. About 27 percent worked at least 35 hours a week but less than 50 weeks a year.

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\*U.S. Department of Labor, Employment Standards Administration, Women's Bureau, Washington, D.C. 20210. June, 1974 (revised).

Note. — The data in this fact sheet are from the U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of the Census; and U.S. Department of Health, Education, and Welfare, Office of Education.

# PUBLICATIONS OF THE WOMEN'S BUREAU

## FACTS ABOUT WOMEN WORKERS

- Twenty Facts on Women Workers. 1974.  
Women Workers Today. 1974.  
Facts About Women Heads of Households and Heads of Families. 1973.  
A Guide to Sources of Data on Women and Women Workers for the United States and for Regions, States, and Local Areas. 1972.  
Who Are the Working Mothers? Leaflet 37. 1972. 25¢.  
Household Employment — New Careers in an Old Business. Reprint from *Word Magazine*, February 1969.  
Charts: (8 x 10½ inches, black and white)  
Women Are Underrepresented as Managers and Skilled Craft Workers. 1974.  
Most Women Work Because of Economic Need. 1974.  
Fully Employed Women Continue To Earn Less Than Fully Employed Men of Either White or Minority Races. 1974.

## CAREER OPPORTUNITIES FOR WOMEN

- Steps to Opening the Skilled Trades to Women. 1974.  
Careers for Women in the 70's. 1973. 50¢.

## EDUCATION AND TRAINING

- Get Credit for What You Know. Leaflet 56. 1974. 25¢.  
Career Planning for High School Girls. Reprint from *Occupational Outlook Quarterly*, Summer 1973.

## CHILD CARE SERVICES

- Day Care Facts. Pamphlet 16. 1973. 60¢.  
Day Care: An Employer's Plus. 1973.  
Children on Campus: A Survey of Pre-Kindergarten Programs at Institutions of Higher Education in the United States. 1973.  
Federal Funds for Day Care Projects. Pamphlet 14. 1972. \$1.40.  
Day Care Services: Industry's Involvement. Bulletin 296. 1971. \$1.00.  
Child Care Services Provided by Hospitals. Bulletin 295. 1970.

## SPECIAL GROUPS

- Facts on Women Workers of Minority Races. 1974.  
Women Offender Highlights. 1973.  
Fact Sheet on Women of Spanish Origin in the United

States. 1972.

- How You Can Help Reduce Barriers to the Employment of Mature Women. 1969.

## STANDARDS AND LEGISLATION AFFECTING WOMEN

- Steps To Advance Equal Employment Opportunity for Women. 1974.  
A Working Woman's Guide to Her Job Rights. Leaflet 55.  
Brief Highlights of Major Federal Laws and Order on Sex Discrimination. 1974.  
Divorce Laws as of October 1, 1973. (Table)  
Marriage Laws as of October 1, 1973. (Table)

## CONFERENCE REPORTS

- Report of Consultation on Businesses in Household Employment and Followup Survey of Participating Firms. 1973.  
American Women at the Crossroads: Directions for the Future. Fiftieth Anniversary Conference of the Women's Bureau, U.S. Department of Labor, Washington, D.C. June 11-13, 1970. 1971.

## HOW TO ORDER PUBLICATIONS

- Publications for which no price is listed may be obtained from the Women's Bureau, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210.

Publications for which a price is listed may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. A discount of 25 percent is allowed on orders of 100 copies or more of any single publication.

NOTE. — Government documents' prices are subject to change without prior notice. Therefore, prices in effect when your order is filled may differ from prices on this list. Since it is not feasible to change prices shown in Government documents in print, the price printed in a document may differ from the price in effect when your order is processed.

If you would like to receive a full listing of publications and/or notices of future Women's Bureau publications, write to the Women's Bureau, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. Please state the specific subject in which you are interested and give your name and mailing address.



## THE CENTER FOR THE FAMILY

Did you know? The American Home Economics Association, *your* professional organization, is concerned about THE FAMILY and is doing something about it! The result is THE CENTER FOR THE FAMILY.

According to Gordon Bivens, Chairman of the Board of Governors of the Center:

*The Center for the Family was established to provide a means by which information can be gathered, programs generated, and knowledge about families disseminated to the people who need it.*

*In our first two years, we have begun a number of programs that should have considerable impact as they are carried out. We welcome questions about these activities, as well as suggestions for future activities to be considered.*

One activity of The Center for the Family that is of great interest to home economics teachers is their new publication, *THE FAMILY IN THE UNITED STATES: A FACT BOOK*. It will be available in mid-summer in paperback and hard cover. Price information is not yet available. Information about this and about other activities in the areas of aging, the value of household work, family health, etc. is contained in a brochure entitled *CENTER FOR THE FAMILY*.

Write now for a copy of this brochure, and for a membership application to AHEA to:

Center for the Family  
American Home Economics Association  
2010 Massachusetts Avenue NW  
Washington, D.C. 20036

## IDEAS FOR THE CLASSROOM

### When Interacting with Pre-Schoolers

Ask the following questions about the play group or nursery school program being conducted by the students in your child development courses. Is it non-sexist? Have your students observe one another.

Are there both male and female teachers?

Do the male teachers help stack blocks while the female teachers help with the snacks?

Do the teachers shake hands with the little girls and tell the boys "how cute they are"? Or is it more frequently the other way around?

Are there housekeeping furniture and dolls as well as trucks and cars in the block area to be used as accessories?

Are there "boy" things as well as "girl" things in the dress-up area: hard hats, football shirts, shawls,

high heels, men's suits, skirts, etc.?

Are boys and girls equally encouraged to use the various facilities: housekeeping and dress-up area, gym equipment, workshop area, all musical instruments?

Are books and records depicting men and women, boys and girls, in sex stereotyped roles? (Who wears the aprons? Who rescues whom?)

Are all children allowed to show their fondness for one another physically?

Which children are allowed (and encouraged) to make grand messes?

Do teachers react to boys and girls the same when there are fights, angry outbursts, or crying?

Do teachers believe in and encourage assertiveness and independence for both boys and girls?

## IDEAS FOR THE CLASSROOM

Have your students react to these statements:

Part of being a woman is being humble.

Society says we all "have to" get married.

"I'm much more comfortable with men than with women." — a female

"I want a woman who will come to me and say 'take care of me!'" — a male

Black women embrace the women's movement in great numbers. (See Cooper, "Women's Liberation and the Black Woman," JHE, 63:7, Oct. 1971, pp. 521-523.

"When I come home my wife should give me a 'hero's welcome.'" — a husband

"The only advantage is that I can hire her for less money." — an employer

"What happens when she marries and has a child?" — an employer

"We as men add unnecessary guilt to women who want something else at some point in their life besides full-time homemaking." — a man

"When things get tough she won't hold up like a man." — a male

We are designated to certain roles by our conditioning.

A woman's fulfillment is in pleasing the male.

Labor saving devices give a woman more time for herself.

"If I get too much education, it limits the choice of men I can marry." — a female

Every woman is capable of being a good mother.

A homemaker who is trained for a profession

should become employed and use her training.

Money should be the prime reason for a homemaker going to work.

A marriage is not complete without children.

Friends and associates tend to have less respect for the man whose wife works outside the home.

The indirect financial costs of a working wife are greater than the financial rewards. (Idea for class project.)

### TEXAS TECH: TIPS AND TOPICS

The most recent issue of *TIPS AND TOPICS IN HOME ECONOMICS* has as its theme "Expanding Role Options for Males and Females" (Vol. XV, No. 3, February 1975) an excellent companion to this issue of *ILLINOIS TEACHER*. Connie Sasse, Editor of *TIPS AND TOPICS* and a former Assistant Editor of *ILLINOIS TEACHER*, and I met and chatted at the AVA convention in New Orleans last fall. When we discovered we were thinking along similar lines we felt just like *TIME* and *NEWSWEEK* the week they both featured Lee Iococca and his new Ford Mustang as their cover story, back in the early 60's, remember! Connie had already "gone to print" so I have had her issue No. 3 for several weeks now. Because many of you subscribe to both publications we at *ILLINOIS TEACHER* have attempted, in selecting and in editing articles and in developed teaching ideas and materials, not to be repetitive.

If you DO NOT subscribe to *TIPS AND TOPICS*, please order this back issue today and enter your subscription for next year.

Back issues: 75¢, 3 for \$1.00

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### IDEAS FOR THE CLASSROOM

Analyze advertisements in newspapers, magazines, or on radio and television. Determine how the advertisements portray roles of men and women, boys and girls. Question the presence or absence of sex-role stereotyping. Prepare a display.

Study the roles of men and women, boys and girls, in other cultures and in other countries. Examine differences, discuss possible reasons for these differences. Compare the roles to those common to the students' own culture. Invite guest speakers who have lived in or studied other cultures.

"Stop the Action!" Ask students to make snapshots of situations which they believe portray sex-role stereotyping. Or ask them to have their friends role play such a situation for the camera. They can work in teams with one camera and one roll of black-and-white film. The developed prints can be shared with others in many ways — on a bulletin board, as a basis for discussion and analysis, for an article in the school newspaper, as a display at the next school board meeting!

Write a story titled, "I Wasn't Too Proud to Let my Hubby Work." Project it 10 years into the future. (Joan Rivers wrote such a story in the *Chicago Daily*

*News*, March 30, 1974.)

Ask students to collect cartoons which relate to "Women's Lib." There are many these days. Social concerns are often most openly and humorously dealt with in the "funny papers." Some examples from my collection:

Gentleman to lady as he presents her with engagement ring: "And I'm not the sort to ask his wife to quit work and other interests just to please me." (Off the Record, by Ed Reed)

Women carrying "Women's Lib" placards in front of Capitol Building: "We'll know when they let us in it's time to get out." (The Small Society, by Bickman)

In the mess hall kitchen: "Cookie, how come you never got married?" "I almost did once. She was bossy though — She would've taken over. She kept telling me SHE was going to do all the cooking." (Beetle Bailey, by Mort Walker)

And then there's this one: Why is a young lady like a hinge? Because she's something to adore. (Source unknown)

JB

## INTRODUCING THE METRIC SYSTEM INTO THE HOME ECONOMICS CLASSROOM

The next three issues of the *Illinois Teacher* will contain a teaching unit on metrics for use by home economists teaching at the junior high school level. The unit was developed by Elaine B. Parsons while she was at California State University, Long Beach. Elaine suggests that the information can easily be revised for use in elementary or senior high schools.

The first three metric lessons and bulletin board ideas follow. Issue One, Volume 19, of the *Illinois Teacher*, September-October 1975, will contain lessons four through seven and additional classroom materials. The second issue of volume 19, November-December 1975, will contain lessons 8, 9 and 10, metric references; and sources for metric supplies.

The spelling, notation and wording have been edited to maintain consistency with other metric materials which have been published in the *Illinois Teacher*. Until a decision is made by a national governing body, we encourage you to decide on spelling and a notation system and to be consistent whenever you write metric units or terms.

# INTRODUCING THE METRIC SYSTEM TO YOUR CLASSROOM

Elaine Baldwin Parsons  
Long Beach, California

By now the majority of Home Economists who are up to date are beginning to wonder how they will start teaching metrics. It is inevitable. The U.S. is going metric and right now. The United States is the only major industrial country not already using metrics or committed to its conversion. However, industry can't wait. Ford, G.M. and I.B.M. are just a few of the corporations who have begun metrication.<sup>1</sup> It is an international market and one that your students will desperately need to be educated to function in. Educators have seen the light and are beginning the lead into metrication. Congress instigated the report in 1968, "A Metric America — A Decision Whose Time Has Come."<sup>2</sup> The result involved several directives for metric conversion:

1. Early priority should be given to educating all American school children in metrics.
2. Conversion costs should be where they fall.
3. Metrication should be supervised by a national metric coordinating board, representing all segments of the economy.<sup>3</sup>

The legislature is busy in attempts toward metrication. It is only a matter of time before one of several bills is passed. Congress advocates a ten year metrication program, the emphasis being on the nation's schools. The recommended schedule is for years 0-2 to be a time for planning new curriculum and training and educating teachers in metrics. The

metric system can then be fully introduced in years 3-7 for grades K-6. As the process continues, years 8-10 will offer the use of the metric system by all grades, K-12.<sup>4</sup> The anticipated goal for metrication is 1985, so we have not much time to prepare.

The cost of the new program will not be great as new equipment and texts are constantly needed for learning materials to stay up to date. As recommended by Congress, "Let costs lie where they fall."<sup>5</sup> As new materials are ordered, educators can insist that they include the metric curriculum needed.

Now it is up to you, the teacher. What do you plan to do about incorporating metrication into your curriculum? You know Home Economics is a field most easily geared to accepting metrics. Constantly involved with measuring such items as foods, room dimensions and clothing sizes, it is only natural for home economists to make the change now. Instead of

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<sup>1</sup>Phillip G. Jones, "Metrics: Your Schools Will be Teaching It and You'll be Living It — Very, Very, Very Soon," *American School Board Journal*. Vol 3 (July, 1973), p. 22.

<sup>2</sup>*Ibid.*, p. 22

<sup>3</sup>*Ibid.*

<sup>4</sup>*Ibid.*

<sup>5</sup>*Ibid.*



the tedious task of re-educating students in the use of inches, feet, cups, pints, etc., we can now switch to the much easier system of metrics with its base of 10 and merely change a prefix to change between different sized units. Oh, it does seem the answer! But, where would you start? Read the metric lessons presented here. They may be what you need to get your own ideas moving. Good luck with a bright new future in the metric system.

The following metric lessons have been designed to motivate the student's curiosity in investigating the simplicity and advantages offered in the metric system. Written to promote maximum student involvement with minimum teacher-aid time, the majority of the lessons require a brief teacher demonstration or introduction for maximum student learning to take place. Learning is stimulated as the reward and the reinforcement of easy achievement is constantly present. These lessons are geared to 8th grade levels but can easily be adapted for either lower or higher grade levels.

The goals for this kind of learning are based on the concept of introducing primarily one new idea at a time to lessen frustration in learning the metric system.

Educators in mathematics have recommended introducing only the limited vocabulary that the students themselves will need to be familiar with. For this reason, the metre, litre, gram and degree Celsius are the only terms being taught, along with the necessary prefix meanings for equivalents. The lessons are designed so that they may be used individually and incorporated into the curriculum being taught.

Although the majority of the lessons lend themselves best to a foods program, several of them could be used easily in other units.

Lessons I, II and III introduce the prefixes used in the metric system and use of the metre for measuring length. One lesson could be taught one day out of each week or they could all be covered in a mini-unit for the week. Several additional fun activities could be included in this unit or added at another time.

Metric Lesson V introduces the use of the Celsius scale for measuring temperature. It can be taught with almost any unit of study — housing, health, or foods. The lesson is recommended as a one or two day assignment.

These first five lessons have been tested in the classroom and were well accepted. It is expected that the last five will also be easily accepted by the students.

Metric Lesson VI introduces the use of the litre for measuring capacity (liquids). The lesson fits best into a foods unit, but could be taught as a unit in itself. This lesson is recommended for a two day assignment.

Metric Lessons VII, VIII, IX and X involve the use of the gram for measuring mass (weight). The emphasis is on the simplicity of the balance or scales for weighing and the efficiency of weighing as a measuring technique.

Introducing the metric system to your classroom can truly be an exciting, but easy task. Read the lessons and judge for yourself. Tune on to metrics today — for tomorrow may be too late.<sup>6</sup>

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<sup>6</sup>All Metric Lessons prepared by Elaine B. Parsons, Masters candidate at California State University, Long Beach, a teacher of 8-9th grade, Home Economics/Science, Long Beach Unified School District, California.

### WHY MEN SHOULDN'T HAVE THE VOTE

1. Because men are too emotional to vote. Their conduct at baseball games and political conventions shows this, while their innate tendency to appeal to force renders them particularly unfit for the task of government.
2. Because no really manly man wants to settle any questions otherwise than by fighting about it.
3. Because a man's place is in the army.

4. Because men will lose their charm if they step out of their natural sphere and interest themselves in other matters than feats of arms, uniforms, and drums.

5. Because if men should adopt peaceable methods, women will no longer look up to them.

*Alice Duer Miller, 1915.*

## METRIC LESSONS I, II, III

The following generalizations and objectives are designed to aid the teacher in beginning the metric study for the first three lessons.

### GENERALIZATIONS

1. The metric ruler is the most commonly used ruler throughout the world.
2. The fractions in the metric system include tenth, hundredth, and thousandth.
3. The unit of measure is divisible by one or ten.
4. The metre is used to measure length.
5. The decimetre, centimetre and millimetre are divisions of the metre used to measure smaller items.
6. A decimetre is  $1/10$  of a metre or a metre divided by ten.
7. A centimetre is  $1/100$  of a metre or a metre divided by one hundred.
8. A millimetre is  $1/1000$  of a metre or a metre divided by one thousand.

### OBJECTIVES

- A. The students will *identify* the metric system as: 1) the most commonly used system of measurement in the world; 2) easier to use than the English system.
- B. The students will *accurately measure* the given items using the metric system of measurement.
- C. The students will *demonstrate the use* of the metric ruler to accurately measure given items.
- D. The students will *compare* the advantages or disadvantages as they apply to the use of the metric system versus the use of the customary system of measurement.

The following terminology is covered in lessons two and three and is defined in the context of the lessons:

metric ruler	centimetre
metre	hectometre
millimetre	dekametre
decimetre	kilometre

### INTRODUCING THE METRIC SYSTEM

*Pre-test for Lessons I, II, and III*

*Instructions: Write the correct answers in the blank provided.*

1. The \_\_\_\_\_ is used to measure length in the metric system.
2. The metre is a unit of measurement divisible by one or \_\_\_\_\_.
3. A decimetre is \_\_\_\_\_ of a metre or a metre divided by \_\_\_\_\_.

4. A centimetre is \_\_\_\_\_ of a metre or a metre divided by \_\_\_\_\_.
5. A millimetre is \_\_\_\_\_ of a metre, or one metre divided by \_\_\_\_\_.
6. There are few \_\_\_\_\_ in the metric system.
7. The decimetre, centimetre, and millimetre are divisions of the metre used to measure \_\_\_\_\_ amounts.

*Post-test for lessons I, II, and III*

1. The metre was designed by the \_\_\_\_\_ people to measure \_\_\_\_\_.
2. In writing the metric symbols no \_\_\_\_\_ are used because this is a decimal system.
3. The metric system is based on divisions and multiples of the number \_\_\_\_\_.
4. \_\_\_\_\_, \_\_\_\_\_ and decimetre are used to indicate divisions of the metre.
5. \_\_\_\_\_, hectometre and dekametre are multiples of the metre.
6. cm is the symbol for the \_\_\_\_\_.
7. mm is the symbol for the \_\_\_\_\_.
8. Write the symbol for decimetre \_\_\_\_\_.
9. The smallest division of space on the metric ruler is the \_\_\_\_\_.
10. Ten \_\_\_\_\_ equal one centimetre.
11. 25 millimetres are written as \_\_\_\_\_ centimetres.

(See key to pre-test and post-test on page 325.)

## METRIC LESSON I – TERMINOLOGY

*Student Instructions:* After you have answered the pre-test read lesson number I. Go on and answer the summary questions.

### The Metric System

The metric system, devised by a group of scientists in France, was adopted by the International Bureau of Weights and Measures in 1875. The system has three main advantages:

1. It is universally used as the language of scientific measurement.
2. It is a decimal system.
3. It has consistent relationships between the units of length, weight and volume.

The metre was assigned to be used for measuring length in the metric system. A metre is approximately 39 inches, which is three inches longer than the custo-

mary English yard. In the metric system all measures are either multiples or divisions of the number ten. Special words which are placed in front of the unit of measure indicate the division or multiple of ten.

Prefix	Equivalents
milli means	1/1000th - one thousandth or 0.001
centi "	1/100th - one hundredth or 0.01
deci "	1/10th - one tenth or 0.1
deka "	times ten
hecto "	times one hundred
kilo "	times one thousand

When these words are the prefixes to the unit of measure called the metre they refer to the length of measurement.

1000 <i>millimetres</i>	=	1 metre
100 <i>centimetres</i>	=	1 metre
10 <i>decimetres</i>	=	1 metre

The following are all multiples of a metre by tens:

1 <i>dekametre</i>	=	10 metres
1 <i>hectometre</i>	=	100 metres
1 <i>kilometre</i>	=	1000 metres

Symbols may be used to abbreviate the terms used. Because this is a decimal system no periods are used.

Unit	Symbol	Unit	Symbol
metre	m	dekametre	dam
millimetre	mm	hectometre	hm
centimetre	cm	kilometre	km
decimetre	dm		

Answer the lesson I summary questions.

1. A \_\_\_\_\_ is used for measuring length in the metric system of measurement.
  2. The prefix *milli* always is equivalent to \_\_\_\_\_.
  3. The prefix \_\_\_\_\_ is equivalent to the amount of 1/100th.
  4. \_\_\_\_\_ is a prefix indicating one thousand times the amount.
  5. 1000 metres is equivalent to one \_\_\_\_\_.
  6. The symbol \_\_\_\_\_ is used to indicate metre.
  7. The symbol for millimetre is written as \_\_\_\_\_.
  8. cm is the symbol used for writing \_\_\_\_\_.
- (See key to summary questions on page 325.)

## METRIC LESSON II

A. Read the following story about measurement.

## A STORY OF MEASUREMENT



Many, many years ago there was a King named Henry who set up the system of measurement used in England. He made the standard unit of measurement the length of his foot. Sometimes the size of the King's waist or the length of his arm were also used for measurement. Each time a new King was crowned he, too, would set up a new standard unit of measurement to be used by all the people of his kingdom based on his own measurements.

As you can imagine, about every twenty years the poor people of England were forced to learn a whole new set of measurements.

One day a very wise King decided this was a very unfair practice. The people should not have to learn new units of measure for measuring just because they had crowned a new king. This wise old king decided his country needed one set of measurements which could be used as the standard form of measurement for all the people.

### B. LESSON ON MEASUREMENT – THUMB AND RULER ACTIVITY

1. List of Materials:  
Strips of wood about 12" or 1 yard long  
Masking tape  
Pencil
2. Student Instructions: Thumb and Foot Ruler

Thumb	and	Foot Ruler
		

1. Make thumb and foot sticks. Place masking tape on ruler. Mark off the length of your foot. In the remaining space, mark off the width of your thumb. Number the lines as shown.
2. Measure length of desk, fabric, cupboard, doors. Record measurements using thumbs or feet as the term measuring length. For example: The cupboard was 25 *thumbs* wide.
3. Questions
  1. How long is the cupboard? \_\_\_\_\_
  2. How long is the door? \_\_\_\_\_
  3. How long is your desk? \_\_\_\_\_
  4. How wide is your fabric? \_\_\_\_\_
  5. How long is your tape measure? \_\_\_\_\_
  6. Discuss the length of your desk with a partner.
  7. What was the length of your partner's desk? \_\_\_\_\_



8. Was your partner's answer the same as yours? \_\_\_\_\_

9. If answer #8 is no, explain why the answers are different. \_\_\_\_\_

#### 4. Ideas

What have you observed about the accuracy of the equipment used for measuring? \_\_\_\_\_

What is necessary for accurate or correct measuring? \_\_\_\_\_

(See key to these questions on page 325.)

#### C. Ideas to Review

Answer the questions below.

1. Glance at the story about King Henry and list two of the problems his people had. \_\_\_\_\_

2. Tell the main problem the King's people had with measuring. \_\_\_\_\_

3. What did the wise King give the people? \_\_\_\_\_

4. From the activity of measuring with the **thumb** and foot ruler, what did you learn about the **thumb** and foot ruler's accuracy? \_\_\_\_\_

5. For all of you to measure the same piece of equipment, what would have to be true about your rulers? \_\_\_\_\_

6. What kind of measuring tool is necessary for accurate measurement? \_\_\_\_\_

7. All people need a \_\_\_\_\_  
to measure accurately.

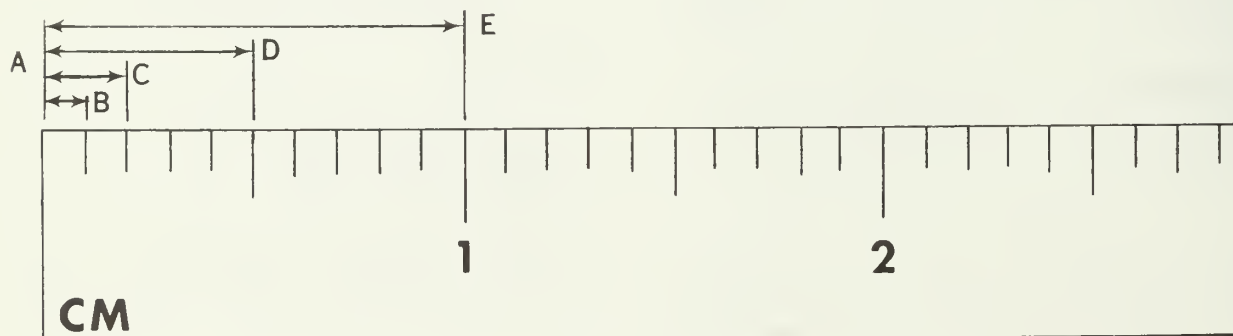
(See key to review questions on page 325.)

### METRIC LESSON III

#### HOW TO READ A METRIC RULER

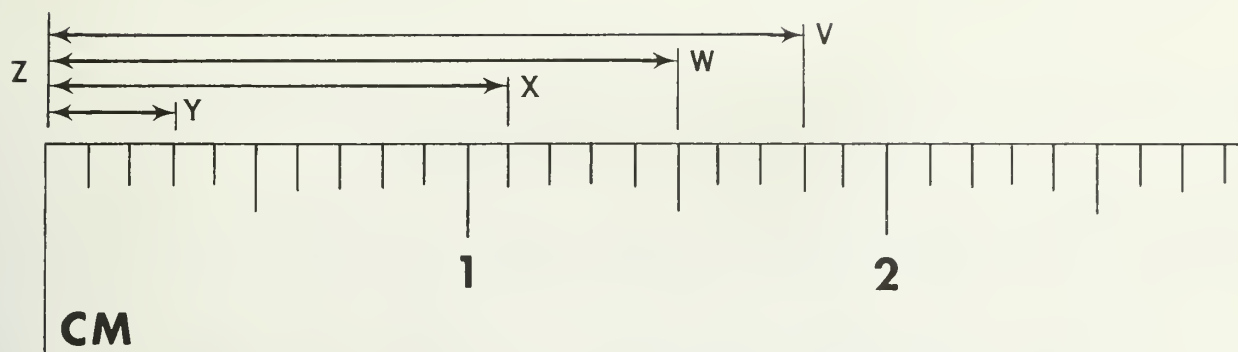
Student Instructions: Study the diagrams and answer the questions.

A. Study the diagram of this metric ruler. (It has been enlarged.) Then read the four statements at the top of the next page.



There is 1 millimetre between A and B.  
There are 2 millimetres between A and C.

There are 5 millimetres between A and D.  
There are 10 millimetres between A and G.



1. How many millimetres are between Z and Y?

\_\_\_\_\_

3. How many millimetres are between Z and W?

\_\_\_\_\_

2. How many millimetres are between Z and X?

\_\_\_\_\_

4. How many millimetres are between Z and V?

\_\_\_\_\_

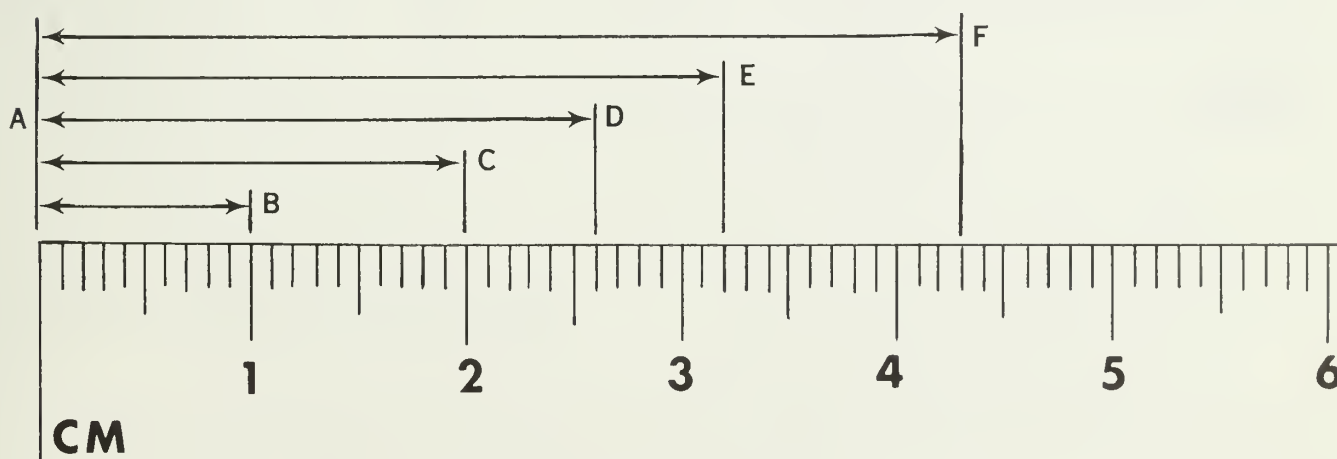
B. Study the diagram of the metric ruler. The smallest division of space is one millimetre. Ten millimetres equal one *centimetre*.

There are 10 millimetres between A and B. This is one *centimetre*.

There are 2 centimetres between A and C.

If the line is between two numbers, write down the smaller number. Here, it is 2. Then put a decimal point or comma after the 2. Count the lines after the 2. Then write the number after the decimal point or comma.

There are 2,6 centimetres between A and D.



Study the *centimetre* diagram marked A, B, C, and D. Answer the following questions.

5. How many centimetres are between A and D?

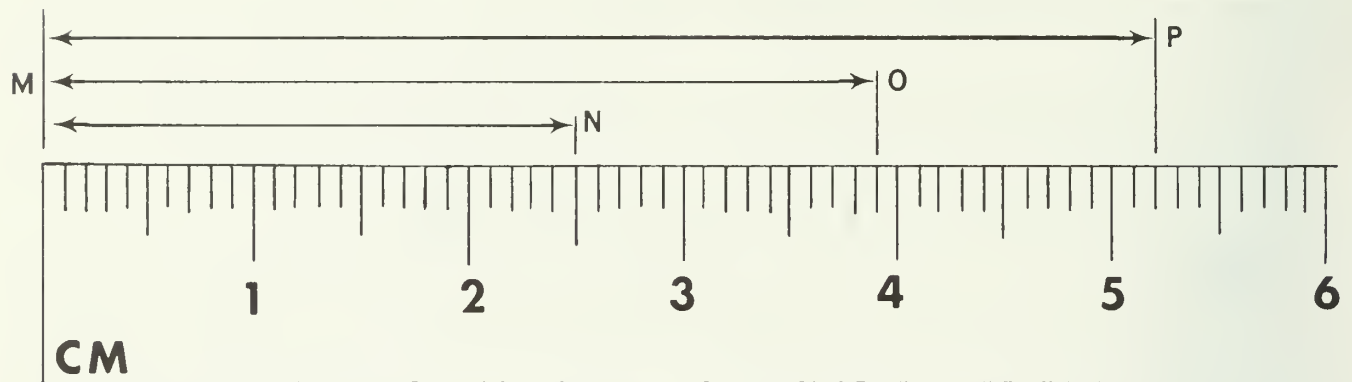
\_\_\_\_\_

6. How many centimetres are between A and E?

\_\_\_\_\_

7. How many centimetres are between A and F?

\_\_\_\_\_

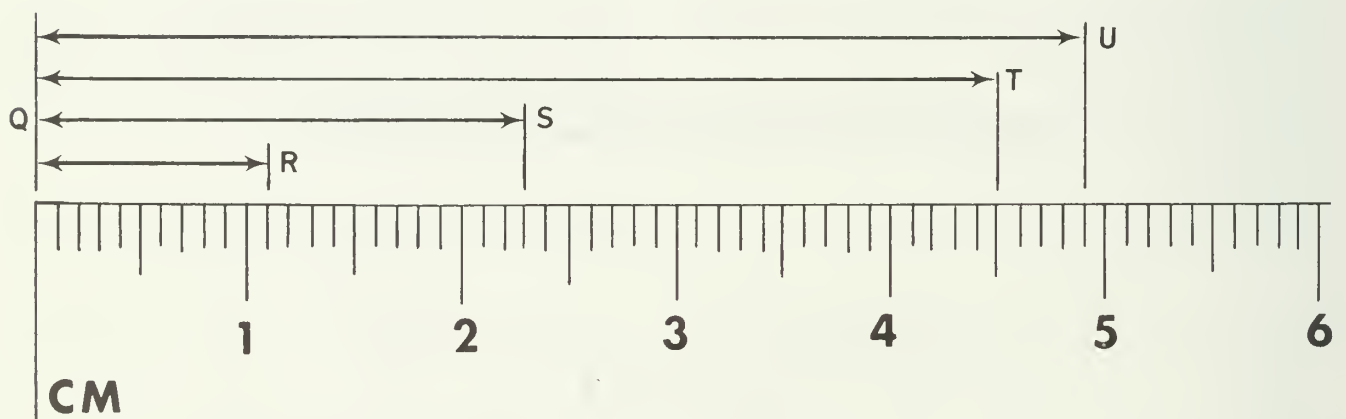


There are 25 millimetres or 2,5 centimetres between M and N.

There are 39 millimetres or 3,9 centimetres between M and O.

There are 52 millimetres between M and P or 5,2

\_\_\_\_\_



8. How many centimetres are between Q and R?

\_\_\_\_\_

9. How many centimetres are between Q and S?

\_\_\_\_\_

10. How many centimetres are between Q and T?

\_\_\_\_\_

11. How many centimetres are between Q and U?

\_\_\_\_\_

(See key for items 1 through 11 on page 325.)



## ANSWER KEY FOR THE METRIC LESSONS

### Pre-test for Metric Lessons I, II, and III

1. metre
2. 10
3. 1/10, 10
4. 1/100, 100
5. 1/1000, 1000
6. fractions
7. smaller

### Post-test for Metric Lessons I, II, and III

1. French, length
2. periods
3. 10
4. millimetre, centimetre
5. kilometre
6. centimetre
7. millimetre
8. dm
9. millimetre
10. millimetre
11. 2,5 cm

### Metric Lesson I Summary Questions

1. metre
2. 1/1000
3. centi
4. kilo
5. kilometre
6. m
7. mm
8. centimetre

### Metric Lesson II: B. Thumb and Foot Ruler Activity? 4. Ideas.

1. It's not accurate
2. a standard form of measurement

### Metric Lesson II: C. Ideas to Review

1. constantly changing king's measurements, learning new measurements
2. no standard form of measurement
3. a standard form of measurement
4. It varied with the size of foot or thumb.
5. It would have to be the same size.
6. a standard form of measurement
7. a standard form of measurement

### Metric Lesson Activity III

1. 3 millimetres
2. 11 millimetres
3. 15 millimetres
4. 18 millimetres  
Ten millimetres equal one *centimetre*.
5. 2,6 centimetres
6. 3,2 centimetres
7. 4,3 centimetres  
There are 52 millimetres between M and P or  
5,2 *centimetres*
8. 1,1 centimetres
9. 2,3 centimetres
10. 4,5 centimetres
11. 4,9 centimetres

BULLETIN BOARD IDEAS: PAGES 326-330.

# VISUALIZE METRIC MEASUREMENTS

COMPARATIVE METRIC MEASUREMENTS

COMPARATIVE U.S. CUSTOMARY MEASUREMENTS

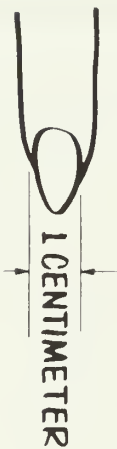
**1 METER** (39.37 inches)

**1 YARD** (36 inches)

**CENTIMETER**

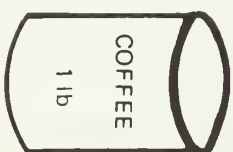
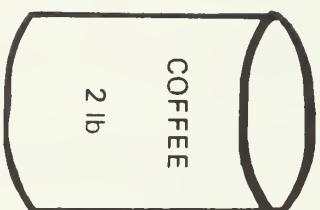
**INCH**

*Your small fingernail is approximately 1 centimeter (a little less than 1/2-inch)*



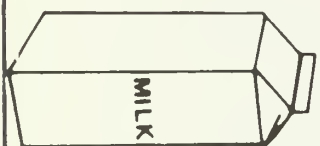
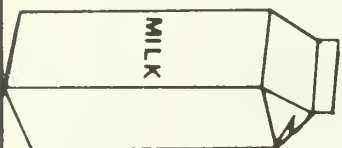
**KILOGRAM**

**1 POUND**



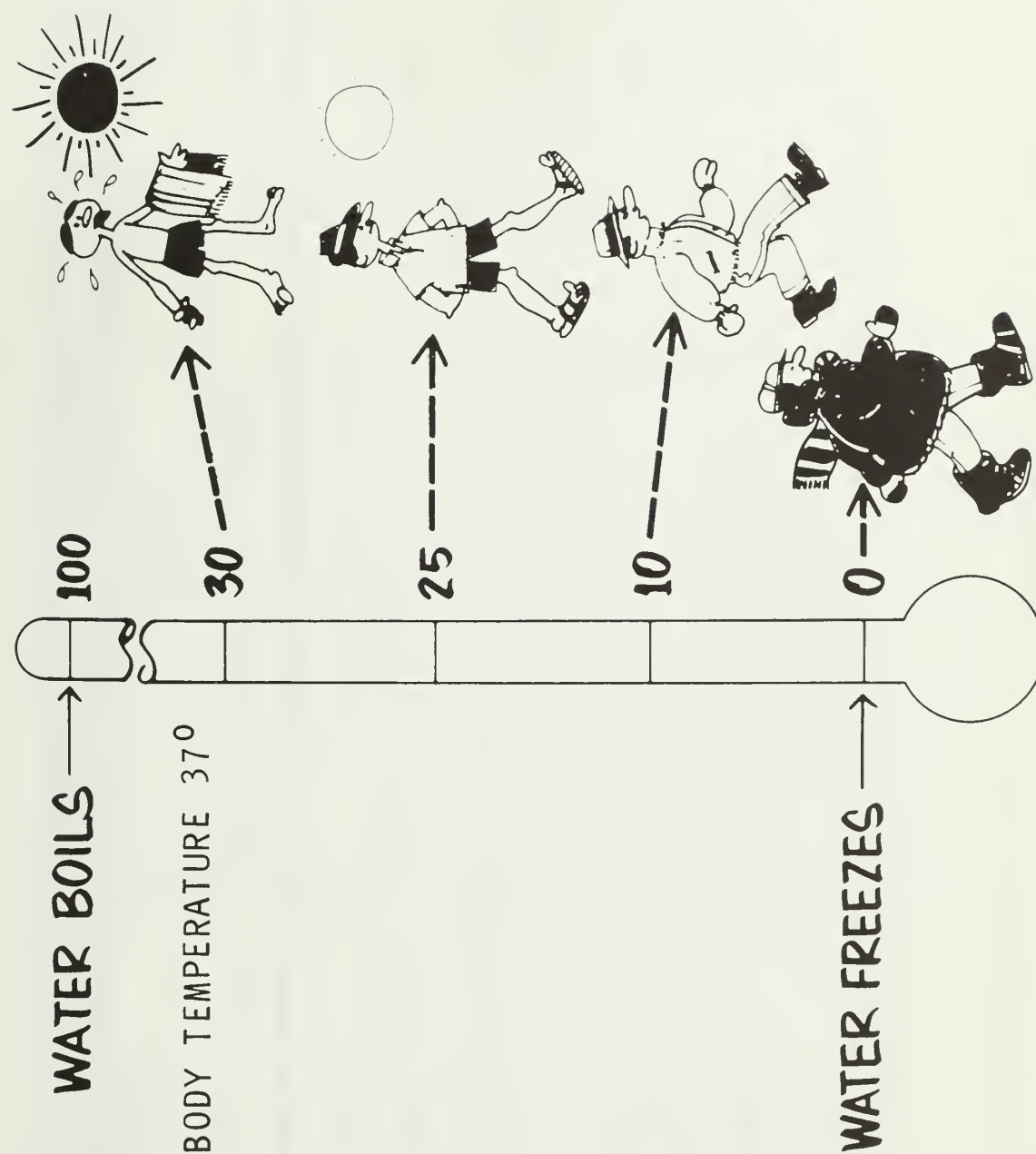
**1 LITER**

**1 QUART**



PLUS 1/4 CUP = 1 LITER

## METRIC TEMPERATURE (CELSIUS)





# LANGUAGE OF MEASUREMENT

LENGTH	MASS	VOLUME	TEMPERATURE (DEGREE)	TIME	ELECTRIC CURRENT	LIGHT INTENSITY	SUBSTANCE
<b>METRIC</b> metre	kilogram	litre	Celsius	second	ampere	candela	mole
<b>CUSTOMARY</b> inch foot yard mile	grain dram ounce pound ton	teaspoon tablespoon fluid ounce cup pint quart gallon	Fahrenheit	second	ampere	candela	mole

# LANGUAGE OF MEASUREMENT

METRIC PREFIXES AND THEIR VALUES		
PREFIX	VALUE	EXAMPLE
mega	one million times	megametre
*kilo	one thousand times	kilometre
hecto	one hundred times	hectometre
deca	ten times	decametre
	BASE UNIT	METRE
deci	one tenth of	decimetre
*centi	one hundredth of	centimetre
*milli	one thousandth of	millimetre
micro	one millionth of	micrometre

\*Most commonly used.

ANTOINE FRAME-OF-REFERENCE SI-METRIC GUIDANCE

SI-METRIC: THE STEM UNITS

metre	→	for length
litre	→	for volume (liquids)
gram	→	for mass (heaviness)

---

SI-METRIC PREFIXES TO MAKE STEM UNITS LARGER OR SMALLER

kilo = 1000	centi = 1/100	milli = 1/1000
mega = million		

---

Celsius	→	temperature
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## LESSON SEVEN

### APPLYING METRICS TO SUBJECT MATTER AREAS

Metres, litres, grams and degrees,  
WHAT am I doing to do with these?

#### Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your assignments.

#### Objectives for the lesson

The student will:

- \_\_\_\_\_ (1) prepare to participate as a professional home economist in the change to the metric system.
- \_\_\_\_\_ (2) apply metric knowledge to appropriate subject matter areas.
- \_\_\_\_\_ (3) anticipate the implications of metric implementation.
- \_\_\_\_\_ (4) use the metric system in some real life situations.
- \_\_\_\_\_ (5) be aware of funding opportunities and the legal status of the metric system at the federal and state levels.
- \_\_\_\_\_ (6) be aware of available educational materials and conversion devices that may be useful in working with consumers.

#### Resources you may explore (Optional)

- \_\_\_\_\_ Batcher, Olive M. and Louise A. Young. "Metrication and the Home Economist," *Journal of Home Economics*, Feb. 1974, 66(2), 28-31.
- \_\_\_\_\_ Darling, Mary. *Metrics in the Kitchen*. University of Minnesota, Agricultural Extension Service. Extension Folder 294-1974.
- \_\_\_\_\_ Department of Commerce. *The Consumer*. Washington, D.C.: U.S. Superintendent of Documents. Stock No. 0303-00864, \$1.75.
- \_\_\_\_\_ Miller, Byron S. and Henry B. Trimbo. "Use of Metric Measurements in Food Preparation," *Journal of Home Economics*, Feb. 1972, 64(2), 20-25.
- \_\_\_\_\_ Parker, Frances J. "The Shift Toward Metric," *Journal of Home Economics*, Nov. 1973, 65(8), 15-18.
- \_\_\_\_\_ "Report of the National Metric Study Conference—Consumer Affairs," *Journal of Home Economics*, May 1971, 63(5), 345-49.
- \_\_\_\_\_ Schlessinger, Phyllis E. and Barbara M. Kennedy. "Metric Measurements in Food Preparation," *Journal of Home Economics*, Feb. 1967, 59(2), 120-23.

#### Activities

- \_\_\_\_\_ Reading the lesson
- \_\_\_\_\_ Preparing a brief paper or audio tape about the role you will assume during metrification
- \_\_\_\_\_ Indicating some of the implications of adopting the metric system and presenting them via an appropriate method
- \_\_\_\_\_ Presenting evidence of some of the ways you are using the metric system of measurement in real life situations
- \_\_\_\_\_ Returning the response sheet and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801

#### Evidence of learnings

- \_\_\_\_\_ Fulfilling the objectives
- \_\_\_\_\_ Completing a paper or audio tape about the role to be assumed
- \_\_\_\_\_ Compiling information about possible implications of the change to metrics
- \_\_\_\_\_ Submitting evidence of the use of the metric system in real life situations
- \_\_\_\_\_ Completing and returning the response sheet and assignments

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. You should be able to complete the lesson within eight hours.

### Optional Activities

- \_\_\_\_\_ Conduct a measurement survey in your school and/or community. The reference by Parker (*Resources you may explore*) gives questions and results from other metric surveys.
- \_\_\_\_\_ Design a metric kit for other teachers in your department or your students. The kit might contain metric measuring tools, suggested activities and educational materials so the person using it could become familiar and learn more about the metric measuring system.
- \_\_\_\_\_ Plan a metric scavenger hunt for your students. You could list metric units such as "2,5 kilograms" and let the students find an object with that mass. Or you could list objects and instruct the students to determine the size of one dimension of the object in metric units. For example, "height of the refrigerator in metres" might be one item for the hunt.

## LESSON SEVEN

This lesson will briefly cover the following topics:

- I Opportunities for home economists during metrification
- II Effects in specific subject matter areas
- III Legislation and funds
- IV Additional sources of metric materials

There are several roles that home economists can fill, and need to fill, during the change over to the metric measuring system. Home economists can relate the needs of the consumer to various organizations, they can help develop standards for products, they can educate consumers, and they can explore other opportunities the change over offers.

A variety of organizations are, and will be, producing products in an attempt to meet the needs of consumers as they adjust to a different system of measurements. Companies that produce educational materials and measuring tools need information about their consumers. Many other companies will be affected by the changes in measuring units and will need information. These include businesses involved in preparing, preserving and selling food products; clothing and textile manufacturers and sales people; interior designers; carpet manufacturers and sales personnel; appliance manufacturers and servicemen; builders of homes; the transportation industry; people involved in recreation programs and people employed in health care. The list could go on and on. Nearly every organization will be affected in some way by the metric conversion. Home economists can help these organizations by interpreting the needs of the consumers to them.

The metric change over offers a unique opportunity to develop nation-wide and world-wide standards for a variety of items. What measurement units will be used in recipes? What sizes of utensils will be produced? What will the dimensions be of a medium sized shirt? How will shoes be sized? What widths of carpeting will be manufactured? What will the dimensions be of a wall oven? What size containers will butter be packaged in? There are a tremendous number of decisions to be made concerning standards for items related to home economics. Home economists are presently involved on committees studying some of these areas. All home economists can communicate their ideas to the people making decisions. Information is needed before the decisions are made.

Home economists are needed to help educate consumers. Every consumer will need to learn some units of the metric system in order to live satisfactorily in our society and economy as metrification occurs. Consumers of all ages will need information, reassurance and help as more and more organizations convert to the metric system. Home economists can provide this aid to the consumer. (This topic is covered in greater detail in lesson eight.)

The change in measurement units also offers a unique opportunity to change some of the systems and correct some of the problems that are connected with measurement. For instance, the variety of sizes in boxes, cans and tubes on store shelves could be drastically reduced by standardizing sizes. Clothing sizes could also be standardized so garments purchased from a variety of worldwide manufacturers would have known critical dimensions. Many appliance parts could be sized so they were interchangeable between brands. Utensils and recipes could be standardized so they could be used in countries around the world with a degree of accuracy. Modules could be developed in the construction industry so building plans and specifications, raw materials, and pre-constructed units could be used interchangeably between contractors and countries. World wide standards for safety and

performance could be developed and implemented. The relationship between cost and value could be further explored. Coordination and professional expertise are needed to make these possibilities into realities. The change to the metric system provides the opportunities and home economists can provide expertise in many of these areas.

ASSIGNMENT A: What role(s) will you choose to assume during metrification? Will this role be beneficial to you, the profession, the school and the country? How will you carry it out? What preparations do you need to make? The objective of this assignment is to think through your role in metrification and how you can best prepare to fulfill this role. Your thoughts and plans may be presented in a brief (1 or 2 page, clearly written or typed) paper or audio tape.

### EFFECTS IN SPECIFIC SUBJECT MATTER AREAS

Have you found some labels that include metric units on products which have not changed in size? This is called "soft conversion." Perhaps consumers will begin to learn the new language of measurement by noting the metric units. When the producer or manufacturer changes the size of the product so it has appropriate metric dimensions it is called "hard conversion." For instance, a carton of milk that contained 1,89 litres will be changed so it contains (and is labeled) 2 litres. Some people believe that products should go through the "soft conversion" or dual labeling phase before hard conversion takes place. Other people believe the soft conversion phase can be eliminated because people will not learn the metric units until they are forced to do so. And there are some people who have strong feelings that some items should not be changed to metric measure. For instance should eggs be packaged in containers holding 10 eggs or continue to be sold by the dozen? Should football fields continue to be marked in yards or should the markings be changed to metric units? Perhaps some items should not be changed, some should go through the soft conversion phase and others could go directly to hard conversion.

The area of home economics that will probably generate the most discussion during the U.S. change to metrics is the area of foods and nutrition. At this time a decision has not been made concerning the units that will be used in recipes. Australia and Canada have decided to use volume units, and they have both chosen a 250 millilitre metric measure. For measuring dry ingredients, Australia is suggesting a set of four cups: 1 cup, 1/2 cup, 1/3 cup and 1/4 cup. Canada is recommending a set of three measures: 250 ml, 125 ml and 50 ml. The recommendations for small measures (similar to our customary tablespoon and teaspoon) also vary between the two countries. Canada is suggesting a set of five measures: 25 ml, 15 ml, 5 ml, 2 ml and 1 ml. The Australian Standards call for a set of four spoons: 20 ml (tablespoon), 5 ml (teaspoon), 2,5 ml (1/2 teaspoon) and 1,25 ml (1/4 teaspoon). At the present time it appears that the United States may also choose a volume system of measurement with a 250 ml, 15 ml and 5 ml measures. Perhaps some international standards can be agreed upon so all countries will divide the 250 ml measure into the same sized measures. By using whole numbers, rather than fractions, it will be much easier to increase or decrease the size of recipes. Australia is continuing to use the terms cup, tablespoon and teaspoon. Canadian literature uses "measures" and they are expressed in terms of millilitres. We may adopt the term "metric measures" rather than calling the measures, cups or spoons.

As the amounts of ingredients in our recipes change slightly, the size of the utensils will also change. Probably baking utensils will be marked in centimetre units first, and eventually the capacity will be expressed by volume (i.e. litres). Manufacturers may use soft conversion first and the metric units will be in "uneven" numbers such as 14,5 cm. These numbers will be "rounded" to 15 cm, or other even numbers, as hard conversion takes place.

It will not be necessary for homemakers to convert all of their customary recipes to metric units and purchase metric measuring tools when metrification occurs. The change is likely to be gradual and it is expected that homemakers will continue to use their present recipes and customary measuring tools. New recipes will be developed for metric measuring tools, and homemakers can purchase new tools when they choose or when their old tools break or wear out.

The temperature change was discussed in lesson six. Note the conversion table on page 266 (Issue 4). The Celsius temperatures are not converted to the exact equivalent of the Fahrenheit temperatures but they are "rounded" to an even number. Manufacturers of ranges, electric fry pans and other heating appliances will probably use similar scales. Candy thermometers will need exact conversions to produce a successful product. The *Handbook of Food Preparation* (American Home Economics Association, 2010 Massachusetts Avenue, N.W., Washington, D.C. 20036) has a table for the exact conversion of temperatures between Fahrenheit and Celsius units.



The Handbook also contains conversions for avoirdupois and metric mass units and customary and metric volume units. Buying guide charts include the mass units in customary and metric units for quantities of foods commonly found in our markets.

Some additional research will be needed before the change to metrics is completed. For instance, we can use a conversion chart or a new thermometer scale to determine the internal temperature for various cuts of cooked meats. But how many minutes of cooking will be required per kilogram? Similarly, recipes will need to be checked. Chickens are not going to change the size of the eggs they lay to correspond with changes in the size of our measuring units! Will the size of a package of gelatin change? A square of chocolate? How will the varying amounts of ingredients interact? Will we be satisfied with the results?

Metric units have been used to measure some quantities in the area of nutrition. At the present time nutrition information is given on labels in a combination of customary and metric units. The serving size is frequently given in customary units and the amounts of protein, carbohydrate and fat are given in grams. Calories are given rather than joules (pronounced *jools*). The Food Models (1973 revision) produced by the National Dairy Council include the numbers of calories and joules in each serving of a particular food.

Everybody is familiar with calories but these will probably be replaced by joules as we convert to the metric system. The calorie is actually a kilocalorie and its equivalent in the SI metric system is the kilojoule. The joule has a symbol of J. Counting joules sounds more exciting than counting calories! A height-mass chart is included with this lesson. It can be duplicated for your use, and the information can be incorporated into the study of nutrition and health. Your doctor and school nurse may be using a similar chart.

Packaging of food products will have some problems as well as provide some opportunities. As package sizes are changed to contain an even or "round" number of metric units, the number of different sized packages can be reduced. Will the consumer be able to distinguish the metric sizes visually or will she need a cue, such as a colored label, to tell the difference? Will new sizes of packages necessitate new machinery for filling and labeling? Since a litre is bigger than a quart and a half of a kilogram is bigger than a pound, more of the product will be in the package. Will the increase in cost be in proportion to the increase in product? Will milk consumption increase with the larger milk containers? Will the smaller number of containers enable manufacturers to reduce costs? Will the consumer take advantage of the "round" numbers to compare the costs of similar products?

Quart and pint jars will probably be replaced by litre and 500 ml jars for canning. Research needs to be done to determine processing times for the larger sized containers. The shape of the jars will determine whether new canning equipment will be needed.

The change to metrics in the area of clothing and textiles will probably be easier for the consumer. The industry is expected to work out many of the problems and do the conversions for the consumer. Clothing sizes will probably be similar to those now sold, i.e. size 12, but the sizes will be defined in centimetres. Men's shirts may still be sold by collar size but the distance around the neck will be measured in centimetres rather than inches. Shoes may be sized according to the length and breadth of the foot in millimetres. The size 250/92 would fit a foot 250 mm long and 92 mm wide. This size system is part of an international system and it is called Mondopoint.

Seamstresses have already found some metric units marked on pattern instruction sheets, pattern books and pattern pieces. The pattern industry will continue to supply all of the needed information on the back of the envelope. The information will be in metric units rather than our customary units. Fabrics will be sold by the metre and the width will be measured in centimetres. Fabric widths may be altered slightly so they can be expressed in rounded numbers. Seamstresses will find that working with centimetre units is easier than inches and fractions. Only a few tools will change for the home sewer. Metric tape measures, rulers, metre sticks, sewing gauges, cutting boards, sleeve guides and hem guides are already being marketed. Some sewing machines manufactured in other countries have seam width guide lines in metric units. Stitch length regulators and buttonhole templates are other parts of the machine that will be affected by the metric conversion.

One effect of the metric change over may be a psychological problem in the clothing area. A centimetre is smaller than an inch. Therefore, "larger" numbers will be needed to describe body dimensions. People may not want to accept "larger" measurements.

Metrification will provide the opportunity to establish standardized sizes of apparel and increase the consistency. At the present time some kinds of garments are sized according to the waist measurement, others are sized by neck size, and still others by length. Some of this diversity may be eliminated by a reorganization. Also, sizes could be standardized so they always had similar critical dimensions.

In the housing and equipment areas, there will be some changes. Carpeting will probably be produced in a

**METRIC IDEAL-MASS (WEIGHT) TABLE**  
for medium-frame women and men (dressed in everyday indoors clothing)

<u>METRIC HEIGHT (Women) in centimeters</u>	<u>METRIC HEIGHT (Men) in centimeters</u>	<u>Ideal Mass for Height in kilograms</u>
150		52
153		53
155		54
158		55
160		56
<hr/>		
163	158	58
165	159	59
166	160	60
168	163	61
170	164	63
<hr/>		
171	165	64
173	168	65
174	170	66
175	171	67
178	173	68
<hr/>		
180	174	69
181	175	70
183	176	71
	178	72
	180	74
<hr/>		
	183	76
	185	78
	188	80
	190	82
<hr/>		

width which is a multiple of a metre. Floor coverings and wall coverings may be sold in square metre units. A metric module (i.e. 100 mm) may be used by architects, builders, cabinet makers, appliance manufacturers and so on. This change probably will affect the replacement of built-in appliances. Consumers have not always had an easy time in the past replacing built-in ovens, and there may be problems replacing other built-ins after appliance manufacturers enter the hard conversion phase. The horsepower output of motors may be changed to watts as may BTU's per hour. Electric bills will probably be in terms of joules and gas bills may be in cubic metres or litres. Thermostats will be set in degrees Celsius and levels of illumination may be measured in lux units rather than footcandles. Conversion of bed sizes could result in slightly larger beds and, therefore, new sizes of sheets and blankets. Houses may be built on lots measured in hectares.

The metric motorist may find signs indicating distances in kilometres, speedometers indicating kilometres per hour (55 mph is equal to 88 km/h), service stations selling gasoline by the litre (59¢ per gallon is equal to 13¢ per litre), and tire gauges which may measure pressure in kilopascals. Maps will probably indicate distances in kilometres.

Standardization in all areas could make measurement less complicated and confusing. Careful planning is needed to coordinate the timing, kind and degree of change.

**ASSIGNMENT B:** There are many implications for home economists that will result from the adoption of the metric system. Gather information or investigate some of the things that could happen when metrification occurs in a specific area. Examples include the effects on the costs of consumer goods, pricing practices, changes in marketing of consumer goods, specifications for metric products, issues and concerns related to volume measurement in recipes and so on. The information you gather may be presented in a manner which is appropriate for your investigation. The objective of this assignment is to think through the effects of the metric change over in one specific realm.

### LEGISLATION AND FUNDS

It is expected that the U.S. Congress may be voting on a metric bill soon, perhaps in August, 1975. Congress legalized the use of the metric system in the U.S. over one-hundred years ago. The reason the additional bills are now being introduced is to make the change over more organized and to set up some guidelines. It is important that you let your legislators know how you feel about this legislation and the importance of it.

This past August President Ford signed Public Law 93-380 which extends the Elementary and Secondary Education Act of 1965. Section 403 of this bill provides \$10 million (authorized but not yet appropriated) each fiscal year until July 1, 1978, to educate students about the metric system. The money is to be used to encourage educational agencies and institutions of higher education, state and local education agencies and other public and private nonprofit organizations to educate the people about the metric system. The bill stated, "It is the policy of the United States to encourage educational agencies and institutions to prepare students to use the metric system of measurement with ease and facility as a part of the regular education program." A program of grants and contracts from the U.S. Office of Education will be used to distribute the money and achieve the purposes of this bill. To obtain information about applications, write Mr. Floyd Davis, Project Manager, USOE Metric Education Project, ROB 3, Room 3043, Washington, D.C. 20202.

At this time thirteen states have adopted metric resolutions. They are Alabama, Delaware, Idaho, Maryland, Michigan, Nevada, New Hampshire, New Jersey, Ohio, Oregon, Pennsylvania, Vermont and Virginia. Twenty-one states intend to begin teaching the metric system on a state-wide basis to all school children no later than 1977. By 1979 it is anticipated that metric will become the preferred system of measurement in these 21 states. Does your state have a metric education bill? Are the leaders in your state anticipating that you will be teaching the metric system by 1977?

Some school districts are making plans, or have decided, to go metric without a directive from the state. What is the status of metric education in your school? Are there funds available to aid in the development and purchase of metric materials? Have you contacted the administrators at the local and state levels about possible grants or contracts?

### ADDITIONAL SOURCES OF METRIC MATERIALS

The following organizations and individuals have metric materials that may be of use to you as you work with consumers. Many of the organizations and people listed below will supply additional information describing their products at no charge. When there is a charge, it is suggested that the products be ordered on



approval. Additional guidelines for selecting metric instruction materials are given in lesson eight. The study guides for each lesson in this course also contain information about metric tools and materials.

#### Organizations

Metric Commission  
320 Queen Street  
Ottawa K1A 0H5 Canada

Metric Information Office  
National Bureau of Standards  
Washington, D.C. 20234

Metrication Task Group  
George C. Marshall Space Flight Center  
Huntsville, Alabama 35812

#### Books

Gilbert, Thomas F. and Marilyn B. Gilbert. *Thinking Metric*. (Programmed Instruction). New York: John Wiley & Sons, Inc., 1973, \$2.95.

Glaser, Anton. *Neater by the Meter*. 1974, \$3.50 paperbound or \$6.50 hardbound. Order from:  
Anton Glaser  
1237 Whitney Rd.  
Southampton, PA 18966

Izzi, John. *Metrication, American Style*. 1974, \$.50. Order from:  
Phi Delta Kappa  
Eighth and Union  
Box 789  
Bloomington, IN 47401

#### *Visuals for Transparencies*

*Metric Measurement Kit*. \$2.50. Order from:  
Link Educational Laboratories  
Box 25  
Hope Hull, Alabama 36043

#### Periodicals

*American Metric Journal*, bimonthly publication of metric training and educational progress, \$35.00 per year, paid-up members of U.S. Metric Association (below) can subscribe for \$12.50 per year (include USMA computer number), from:

AMJ Publishing Co.  
Drawer L  
Tarzana, Calif. 91356

*Metric Association Newsletter*, published four times per year, cost included in \$3.00 membership fee per year, from:

U.S. Metric Association, Inc.  
Sugarloaf Star Route  
Boulder, CO 80302

*Metric Monitor*, published by:

Metric Commission  
Box 4000  
Ottawa, Ontario K1S 5G8 Canada

*Metric Reporter*, published biweekly (26 issues per year), \$25.00 per year from:

American National Metric Council  
1625 Massachusetts Avenue, N.W.  
Washington, D.C. 20036

*Metric News*, bimonthly publication, \$5.00 per year, from:

Swani Publishing Company  
P.O. Box 248  
Roscoe, IL 61073

*OGONTZ Metric News*, edited by:

Dr. Anton Glaser  
Ogontz Campus, PSU  
Abington, PA 19001

#### Conversion Devices

The average consumer will rely on professionals to publish charts and supply information when measurement units in one system need to be converted to units in the other system. As a professional home economist you do not need to spend a great amount of time referring to conversion charts and performing arithmetic calculations. You may already have a calculator that will perform the calculations. Also, many companies have assembled conversion devices that can quickly supply appropriate equivalents in either measurement system. Contact the nearest U.S. Army Recruiting Office for a free converter for yourself and each of your students. This converter does not contain scales small enough to convert ounces and grams or millilitres and quarts (or smaller volume units). A converter which contains these smaller units can be ordered. The Deluxe Cook 'N Sew Converter (Product Code CS-1) available for \$2.50 from:

The Educational Aids Department  
Union Carbide Research Center  
P.O. Box 363  
Tuxedo, New York 10987

A class pack containing 25 student converters plus one deluxe model is available from the same company for \$15.00 (Product Code CS-2).

The research leading to the development of this Correspondence Course for Metrics has been partially supported by an Omicron Nu Fellowship awarded through the American Home Economics Association Foundation.

## RESPONSE SHEET: LESSON SEVEN

Return this sheet for evaluation along with the other evidence of learning described in the lesson. It is suggested that you keep a copy of the materials you prepare since the University cannot assume responsibility for assignments lost in the mail.

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_  
Votec x399 B

*Print your name and address within the box indicated above.*

Return the response sheet and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801.

ASSIGNMENT A: Include your paper or tape.

ASSIGNMENT B: Include information about the implications of adopting the metric system.

ASSIGNMENT C: Have you been able to utilize the metric system of measurement in everyday situations? Submit evidence of at least one way you have begun to use metric measurements in a real life situation since beginning this course. The evidence may be in the form of photographs, an audio tape, a brief paper, a news story or other appropriate methods. The objective of this assignment is to encourage the use of the metric system in realistic situations in day to day living.

Please add additional comments if you desire.

One more lesson to go ! Congratulations!



## LESSON EIGHT

### TEACHING METRICS

Metres, litres, grams and degrees,  
HOW am I going to teach all these?  
Study Guide

Place a check in the appropriate blank when an item is completed. This is your guide and it does NOT need to be returned for evaluation with your assignments.

#### Objectives for the lesson

The student will:

- \_\_\_\_\_ (1) be aware of the importance of learning the metric system of measurement.
- \_\_\_\_\_ (2) be prepared to deal with resistance to the metric system in a positive manner.
- \_\_\_\_\_ (3) know the suggested criteria for selection of metric instructional materials.
- \_\_\_\_\_ (4) apply metric knowledge to teaching through the design of a teaching aid.
- \_\_\_\_\_ (5) utilize some of the suggested principles of teaching metrics in the development of the teaching aid.
- \_\_\_\_\_ (6) develop a metric teaching aid and plans for utilizing it.

#### Resources you may explore (Optional)

- \_\_\_\_\_ Agency for Instructional Television. *Metric Education*. From:  
AIT  
Box A  
Bloomington, Indiana 47401
- \_\_\_\_\_ Buckeye, Donald A. *I'm OK, You're OK, Let's Go Metric*. \$3.25. Order on approval from:  
Midwest Publications Co., Inc.  
P.O. Box 129, 1700 W. Maple Rd.  
Troy, MI 48084
- \_\_\_\_\_ Clack, Alice A. and Carol H. Leitch. *Amusements in Developing Metric Skills*. \$3.75. Order on approval from:  
Midwest Publications Co., Inc.  
P.O. Box 129, 1700 W. Maple Rd.  
Troy, MI 48084
- \_\_\_\_\_ Henderson, George L. and Lowell D. Glunn. *Let's Play Games in Metrics*. \$6.25. Order on approval from:  
National Textbook Company  
8259 Niles Center Road  
Skokie, IL 60076
- \_\_\_\_\_ Lampman, Donna. "Metrication of the American Family," *The Arithmetic Teacher*, Dec. 1974, 21(8), 707-09.
- \_\_\_\_\_ Ploutz, Paul F. *Decimeter* (game). \$11.00. Order on approval from:  
The Lawhead Press, Inc.  
900 E. State Street  
Athens, Ohio 45701
- \_\_\_\_\_ Shumway, Richard J. and Larry Sachs. "Don't Just Think Metric -- Live Metric," *The Arithmetic Teacher*, Feb. 1975, 22(2), 103-10.
- \_\_\_\_\_ Taylor, Ross and Jane Donnelly Gawronski. "'Think Metric Week' in Minneapolis," *The Arithmetic Teacher*, March 1975, 22(3), 180-8.
- \_\_\_\_\_ Trueblood, Cecil R. and Michael Szabo. "Procedures for Designing Your Own Metric Games for Pupil Involvement," *The Arithmetic Teacher*, May 1974, 21(5), 404-08.

#### Activities

- \_\_\_\_\_ Reading the lesson and answering the questions on the response sheet

- \_\_\_\_\_ Presenting evidence of the importance of learning the metric system
- \_\_\_\_\_ Evaluating an instructional metric material or aid
- \_\_\_\_\_ Developing a metric teaching aid and plans for utilizing it
- \_\_\_\_\_ Returning the response sheet, answers, and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801
- \_\_\_\_\_ Requesting administration of final examination by students taking the course for credit. Students taking the final exam will also receive a course evaluation.
- \_\_\_\_\_ If you are not taking the final exam, please request an evaluation form for the course when you return this lesson. The instructor will not see this form, but the results will be tabulated by a computer after your name is removed.

#### Evidence of learnings

- \_\_\_\_\_ Fulfilling the objectives
  - \_\_\_\_\_ Submitting information about the importance of learning the metric system of measurement
  - \_\_\_\_\_ Evaluating an instructional metric material or aid
  - \_\_\_\_\_ Designing a metric teaching aid and plans for using it
  - \_\_\_\_\_ Completing and returning the response sheet and answers
- Students wishing to receive credit will complete the "Request For Administration of Final Examination."

You may wish to complete this lesson in several sessions rather than attempting to complete the entire lesson at one time. The entire lesson will probably take about eight hours for the average student.

#### Optional activities

- \_\_\_\_\_ Find and visit an exemplary metric education class or program
- \_\_\_\_\_ Share your knowledge of metric education with other teachers
- \_\_\_\_\_ Plan metric education activities for the parents and other adults in your community.
- \_\_\_\_\_ Share the metric education aids you develop with other teachers
- \_\_\_\_\_ Organize an evaluation team to review and select appropriate metric materials for your system
- \_\_\_\_\_ Develop a replacement plan for your equipment and materials which will be affected by metric conversion

### LESSON EIGHT

This lesson will briefly cover the following topics:

- I Importance of learning the metric system,
- II Guidelines for selecting metric instructional materials,
- III Principles of teaching metrics, and
- IV Some specific guidelines for teaching metrics.

In the first lesson of this course we talked about some of the advantages of learning the metric system and trends toward metric usage in the U.S. A map of non-metric countries was included. This information suggested why it is important to learn and adopt the metric system.

Probably one of the biggest problems the teacher will encounter is that many people are totally unfamiliar with the metric system. They do not know the units or how they relate to each other, and they assume that the new system will be as difficult to learn as our customary system of measurement. Many of us have to think before we say how many pints are in a quart, how many quarts are in a gallon and so on. Few people know the relationship between dry, liquid and Imperial quarts. No wonder many people are reluctant to try another system!

Learning the metric system involves knowledge and skills, and it also involves the affective domain. People need to develop positive thoughts, rather than fear, about the new system of measurement. One way to develop these positive feelings is to make students aware of the importance of learning the metric system. Then reassure and encourage them as they learn the metric units.

There is another related problem. People do not see and experience the metric measuring system in their environment. When they do use the system, for example when talking about photographic film, they may not be aware that they are talking about metric units. It would probably be much easier to alleviate people's fears

about the metric system if we could put them in a totally metric environment for a brief period of time. It would also be much easier for teachers to teach the system if the students were required to practice what they were learning in their homes and community. It is difficult to teach a system which is only used in the classroom.

James A. Leach, when a graduate student at the University of Illinois, expressed some of the frustrations a consumer felt who refused to learn the metric system. The story he wrote follows.

### LOST IN A METRIC WORLD

*By James A. Leach*

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Mary Wilson had refused to accept the fact that the United States was going to convert to the metric system. She had refused to become familiar with the new system. She could see no sense in changing to a system just because the rest of the world was using it. Most of the people in the U.S. had accepted the change. They were gradually learning the new system. It had not been a big problem for most people because they were willing to accept help and gradually replace the old system with the metric system. In fact, once they learned the metric system they found that it was easier to use. But Mary was stubborn and did not even try to learn the new system. She avoided it every time it was mentioned. Mary had planned to take a weekend trip and was getting ready to leave as we join her.

"I hope it is cold in the mountains today," Mary muttered to herself as she looked out the window. She was planning to go skiing if the temperature was cold enough. Mary hurried to get packed and decided to call the weatherman to check on the temperature in the mountains. The man at the weather bureau told her it was 25 degrees. Mary was pleased. She thought to herself that the snow would be just right. After loading everything into the car she decided to stop and pick up some groceries before she left since they would probably be cheaper in the city. She had a recipe for a casserole which would last a few days so she wouldn't be bothered with cooking over the weekend. When she got to the store she found that the packages were different sizes from what she was used to. She usually bought a pound of butter and a quart of milk. But there were no pounds or quarts, only sizes that she did not understand. She bought what looked like the right sizes. She was sure she could use them for the recipe. When she got into the car Mary took out the recipe she had gotten from a friend and could not believe her eyes. All of the ingredients were listed in metric measurements. She started to read the recipe: 500 grams of hamburger, 150 grams of tomato sauce, 5 millilitres of salt. Mary didn't even read anymore. She was lost and confused. "Well," she said disgustedly, "I just won't make the casserole. Besides, I don't have time anyway. I want to get to the mountains and start skiing."

Mary got in the car and headed for the mountains. She only had half a tank of gas and decided to stop and get five gallons. That way she was sure to have enough to get her there. When she pulled up to the gas pump, the man asked her how many litres she wanted. Mary angrily said, "Give me five," thinking that a litre must be the same as a gallon. She quickly paid the man and left the station. "Now," she thought, "I'm finished with that stupid metric system and I am going to forget all about it on my vacation."

Once on the highway Mary was in a hurry and wondered what the speed limit was. Then she saw a sign. It said 80 kilometres per hour. "Great," she thought out loud, and speeded up to 80 miles per hour. About ten minutes later she was surprised to see a state patrolman alongside her car waving her to pull over. She asked the patrolman what the problem was. She knew she was only going 80 and that was what the sign said the limit was. "The trouble is," the patrolman said, "you were speeding and that is going to cost you \$22.50. Here is the ticket and you had better slow down. The speed limit is 80 kilometres per hour not 80 miles per hour." Mary was furious as she pulled back onto the highway. She had only had enough money to last three days and now she would only be able to stay for two days. Mary was only about half way there when the car began to sputter and quit running. She pulled off the road and could not understand why the gas gauge read empty. "I just got five gallons before I left," she screamed out loud. Then she remembered. The gas station attendant had asked her how many litres she wanted. That metric system had gotten her in



trouble again. Mary had no choice but to call a gas station from a nearby phone and ask them to bring her some gas. When the truck finally arrived he charged her \$10 for the drive out and another \$5 for the gas. Mary could not believe what was happening to her. Now she could only afford to stay one day in the mountains. Nevertheless, she was determined to have a good time and to ski the entire day.

When she finally reached the mountains Mary almost began to cry. She had packed winter clothes to keep warm. The temperature was supposed to be 25 degrees. Instead, it was very warm and there wasn't any snow at all. Desperately she looked at a thermometer. It did say 25 degrees. Then Mary realized the temperature was being measured in Celsius degrees. She hesitantly turned the car around and headed for home. Mary was very upset that her vacation had been ruined. She looked at herself in the rear view mirror and decided that she would learn the new system. She was tired of being lost in a metric world.

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**ASSIGNMENT A:** How would you react to the resistance of a consumer toward the metric system? You may want to use Mary from the preceding story or someone else you know as the consumer. Plan the action and/or tactics you would use. The ultimate objectives of this assignment are to prepare you to deal with resistance to the metric system in a positive way and to make you aware of the importance of learning the metric system of measurement. Evidence may be presented via a brief (1 or 2 page, clearly written or typed) paper, an audio tape or a visual.

### GUIDELINES FOR SELECTING METRIC INSTRUCTIONAL MATERIALS

The following guidelines can be used in evaluating metric educational materials, aids and programs. The criteria listed below are suggested as guidelines and the ultimate decision may be influenced by the unique qualities of the educational setting. These guidelines may also be used in the development of materials.

- A. *Objectives* (stated or unstated) – Are they attainable? Are they desirable? Are they appropriate for the students? Are the educational materials consistent with the objectives? Are the objectives consistent with the educational approach and philosophy of the school and/or department?
- B. *Appearance* – Is it attractive? Are the pictures, symbols and lettering appropriate for the students (age, reading level, timeliness, sex and ethnic groups)? Is it easy to identify and store?
- C. *Information* – Does it stress significant concepts of the metric system? Will the information be useful and relevant to the students? Is it accurate? Is it consistent with the principles for teaching metrics (See next section)? Does it make the metric system seem more complex than it is? Is the information given adequate? Is it understandable and clear? Is it well organized?
- D. *Learning Activities* – Are there appropriate “hands on” experiences? Are they challenging to, but not beyond the ability of, the students? Are there clear directions, if necessary? Is the sequence of activities appropriate and interesting?
- E. *Availability* – Can the materials be shared, borrowed, ordered on approval, or purchased? Is the cost consistent with the value? Are the materials well constructed and durable? Can parts that will be used up, broken or lost be reproduced or replaced?

**ASSIGNMENT B:** Choose a metric instructional material or aid that you have received and evaluate it for use with your students. Briefly explain how the metric material meets, or fails to meet, the stated guidelines. Add additional criteria that you would consider when evaluating the specific material. Would you use the material with your students? Your comments may be written or taped. The objective of this assignment is to encourage you to evaluate metric materials before purchase and use.

**SUGGESTION:** If you have not had a chance to look at a specific metric aid that you are interested in, order it on approval. It is less expensive to pay postage costs than it is to purchase material which is useless to you.

*The Arithmetic Teacher* and *Mathematics Teacher* contain reviews of some metric materials. The November 1974 issue of *Mathematics Teacher*, 67(7), 632 lists the products that have been reviewed since January 1971.

## PRINCIPLES FOR TEACHING METRICS

The following principles have been developed to aid teachers in the presentation of the metric system of measurement to students above the elementary level. These principles or generalizations have been gathered from the author's experience and the writings of many people who have taught or studied the teaching of the metric system in other countries as well as in the United States.

1. *Understanding the need for adopting the metric system and its impact on the nation as well as on home economics, will help the teacher to persuade others to learn the metric system.* The teacher must be convinced that the metric system is useful, important and worth learning before she can convince the students that the metric system is a useful measurement system.

Some students may need reassurance that the change will not be too difficult or threatening. Whenever the teacher finds some resistance she needs to be prepared to deal with it in a positive manner. Students learning the metric system experience affective changes as well as developing new knowledge and skills.

One way to increase awareness is to attach signs to objects in the students' surroundings indicating appropriate metric units.

2. *Converting from the customary measurement system to metric or vice versa can be confusing, involve many mathematical calculations, take a lot of time, create a false complexity about the metric system and help to maintain the customary system.* Conversion seldom helps the student learn either system. If the need to do conversions arises, there are conversion tables and mechanical conversion devices.

Approximate conversions, such as 1 kilogram is a little heavier than 2 pounds, do help the students with a knowledge of both systems visualize relationships. Other approximate conversions include:

1 metre is a little longer than 1 yard,  
1 kilometre is a little longer than  $\frac{1}{2}$  mile, and  
1 litre is a little larger than 1 quart.

The emphasis is on understanding the two systems, and the relationships between them, rather than the arithmetic of conversion.

Minimize conversions within the metric system to commonly used units adjacent in size. Consumers will seldom need to convert kilometres to millimetres. They will more frequently convert millimetres to centimetres or vice versa.

3. *Illustrating the relationships between the metric units of length, area, volume and mass helps students to understand the logic, simplicity and design of the metric system.* Changing from one unit to another is much simpler in the metric system than it is in the customary system.

Cooking involves the interactions of mass, volume, temperature, energy and time. Students will need help with the new measuring units and tools in this area. Teachers working with customary measures of spoons, cups and ounces may find it worthwhile to develop the relationship of these units with appropriate metric units.

4. *Emphasizing measurement activities where the students are actively involved in the measurement processes and experiences will help the students develop an understanding of the metric system.* Students become familiar with the metric system and learn to think in terms of metric units as they participate in realistic experiences. Activity-based experiences have been more effective than lectures for teaching the metric system. The choice of strategies for teaching the metric system can facilitate or impede "thinking metric."

Activity oriented measurement experiences include estimation and verification by direct measurement, developing relationships between units, speaking and writing with metric units, making comparisons, and drawing and/or using maps and graphs. Use metric units at every opportunity and encourage the students to THINK METRIC.

The teacher can encourage students to choose a unit of measure and use it to measure a variety of objects. After repeated experiences with the measurement unit, the students will be able to estimate the size of

other objects with a degree of accuracy. It has been suggested that estimates of length should have no more than ten percent error, [NCTM Metric Implementation Committee. "Metric: Not If, But How," *The Arithmetic Teacher*, May 1974, 21(5), 366.] if they are to be considered a "good guess."

Another activity that has been successful is to encourage students to find body dimensions and common items that have the same measurement as a metric unit. (Example: the width of a small fingernail is approximately equal to 1 cm). The student can use the item as a reference point for future comparisons. It is helpful to measure one's own mass as well as the mass of a stapler and paper clip, for example.

Students can build, modify or convert many items now utilizing customary measurement units to items with metric units. This can be a learning experience as well as an aid in modifying existing equipment. Practical experiences and situations such as those described above have been effective with students of all ages.

5. *Consistency in spelling, notation for decimal placement and terminology eliminates needless confusion.* For similar reasons avoid using materials and equipment that utilize customary units, if possible. Reject materials that contain the wrong symbols, errors, units not in SI (International System of Units), emphasis on conversion techniques, and information that is unsuitable. Write the publishers or manufacturers so they know why you are not pleased with their products. Likewise, notify the producers when you find a product that is particularly good.
6. *The continued use of customary and metric units makes it more difficult to unlearn the customary measurements and conversion from one unit to the other becomes a common but undesirable practice.* Encourage the students to use only metric units after the initial introduction of metric units. Also, look for measuring tools that contain only metric units so the students cannot rely on the customary units.
7. *The use of metric measurement in the home and community reinforces the school activities and aids learning and retention.* Both adults and children need to be able to practice using metric units in the home and community as well as at school.  
Involve and inform parents and other adults in the process of metrification as well as children. Parents like to be able to assist their children and the idea of a "generation gap" is usually not appealing to them.
8. *If the students gain self-confidence in working with the metric units they will be more likely to continue using them in situations outside of the classroom.* Reassure them that the metric system is easier to use and try not to over-dramatize the difficulties in changing systems.
9. *Conversion costs can be reduced by timing the replacement of appropriate items so they are coordinated and replaced at the end of their regular lifespan, whenever possible.* Make a replacement schedule for existing equipment and books that contain customary units. The costs will be less if metric materials are added as the customary materials wear out. Also, the costs will be spread over several years, and, in some cases, there will be no added expense for metric conversion.

#### SOME SPECIFIC GUIDELINES FOR TEACHING METRICS

1. Help the students become familiar with the commonly used SI units, prefixes and symbols for measuring length, mass, time, temperature, volume and speed. Emphasize the commonly used multiples and subdivisions and their corresponding prefixes.

Length	Area	Volume	Mass
mm	cm <sup>2</sup>	ml	mg
cm	m <sup>2</sup>	ℓ or dm <sup>3</sup>	g
m	ha		kg
km			

Since area, volume and mass units are derived from the metric units of length, it is appropriate to begin the study of units with length.



2. Use decimal notation when recording measurements. Stress the decimal nature of the system and use fractions as little as possible. Write fractional terms in decimal form.
3. Accent the first syllable when pronouncing metric prefixes.
4. Home economists are frequently more concerned with mass (quantity of matter) than weight (gravitational force). The SI metric system allows teachers to distinguish between mass and weight. Newton is the name of the unit of force and kilograms are the unit of mass.
5. Keep measuring tools simple and use tools that have only metric units. Purchase tools with the degree of accuracy required for the situation. Students can make many tools and aids themselves.
6. Avoid unnecessary precision. When we give our age we seldom indicate the number of months and days but only the years. Similarly, a waist measurement would be given as 62 centimetres rather than 622 millimetres. Do not include additional numbers when they have no purpose or if they give a false impression of accuracy. Measurement is approximate.

ASSIGNMENT C: Using the metric knowledge you have learned and the needs of your students, develop a metric teaching aid. This may be a game, skit, display, simulation, movie, video tape, or other type of teaching technique. It should utilize some of the suggested principles for teaching metrics and it should not violate any of the principles. You may also want to review the suggested guides for selecting metric materials periodically as you are developing the aid. It is not expected that one aid will incorporate all of the metric knowledge or principles.

This is considered a major part of the course since it is a drawing together of all of the information that has been covered. It is expected that each student will spend more time on this assignment than any others.

Some of the aids developed may be more easily shipped through the mail than others. Instead of sending a display, for example, photographs and/or sketches may be an appropriate method of conveying the information about the display. An audio tape would be an appropriate method of submitting a student radio broadcast, and so on.

There is no penalty for utilizing and further developing someone else's idea as long as credit is given to the original source and copyrights are not violated. If you are having trouble finding an idea, the following suggestions may give you an inspiration: simulate a supermarket and help the students look at the effects of the metric conversion; have the students design a menu and kitchen for a restaurant that is converting to the metric system; help the students investigate the changes in house design, house buying and decorating that will occur when metrification takes place; write a skit about a metric lifestyle; plan an exhibit about the impact metric conversion will have on the environment; conduct a metric recipe contest; organize a metric club or conduct a metric workshop.

In addition to sending in the aid or an appropriate representation of the aid, it is expected that the following information will be included:

1. Goals or objectives of the aid or materials. These may be stated in a way that is meaningful and appropriate for you.
2. The concepts, principles, generalizations (that is the content) that is being taught.
3. The activities the teacher will be doing to use the aid and teach 1. and 2. above.
4. The activities the students will be doing in order to learn 2. above and accomplish 1. These will probably be activities which will develop skills for using the metric system in everyday life.
5. Any additional materials or resources that will be needed when using the aid.
6. The way in which this aid will be evaluated. How will you know whether to use, modify or discontinue the use of the aid in the future? How will you evaluate the students' participation?

## RESPONSE SHEET: LESSON EIGHT

Name		
Street Address		
City	State	Zip Code

Date \_\_\_\_\_  
Votec x399 B

*Print your name and address within the box indicated above.*

Please type or clearly write your answers on another sheet of paper and return it with the assignments.

### QUESTIONS

1. In reference to your metric file, what materials have been particularly useful to you?
2. In evaluating all of the materials found, were they useful to you? Were they accurate? Could you afford the materials you wanted? Additional comments.

ASSIGNMENT A: Include your paper, tape or visuals.

ASSIGNMENT B: Include your paper or tape.

ASSIGNMENT C: Include your metric teaching aid or appropriate representation of it along with the plans for utilizing it as specified in the written assignment.

If you are taking the course for credit, please complete the "Request For Administration of Final Examination" which follows. You will receive an evaluation form for this course with the final examination.

If you are not taking the course for credit, please check the following blank:

\_\_\_\_\_ I wish to receive an evaluation form for this course.

The instructor does not see your evaluation form but does receive a computer print-out with a compilation of the results.

Please add additional comments if you desire.

Return the response sheets and assignments to Judy Oppert, 352 Education, University of Illinois, Urbana, IL 61801.

Congratulations on completing all of the lessons and assignments!!!

## REQUEST FOR ADMINISTRATION OF FINAL EXAMINATION

Name \_\_\_\_\_ Date \_\_\_\_\_

Street Address \_\_\_\_\_ Course \_\_\_\_\_  
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City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Date on which examination is desired \_\_\_\_\_  
(No sooner than 2 weeks after mailing this request)

### Place

\_\_\_\_\_ University of Illinois, Correspondence Courses, 104 Illini Hall, Champaign, Illinois  
61820  
(not open on Saturday)

\_\_\_\_\_ University of Illinois at Chicago Circle, Student Counselling and Testing Services,  
Room 909 University Hall, 601 South Morgan, Chicago, Illinois  
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(not open on Saturday)

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\_\_\_\_\_ Superintendent of Public or Parochial School Districts

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Registrar, or Official Testing Service of an Accredited University or College

\_\_\_\_\_ Education Officer (in the case of Armed Service Personnel) (Information and  
Special Services Officers and the Commanding Officer will be approved only  
when certification is furnished that the Education Officer is inaccessible.)

Name \_\_\_\_\_

Official Title \_\_\_\_\_

School \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

**Note:** Please do not ask for approval of an individual not in the above categories to serve as proctor for your examination. You must contact the proctor as to date, time, and place of examination. Appointments are to be made at a time convenient for the proctor.



"Quality of Life" will be the theme for next year's volume of *ILLINOIS TEACHER OF HOME ECONOMICS*. During the year we hope to (1) explore the meaning of "quality of life," (2) examine the contributions that are being made and can be made by home economists to improving the quality of life, and (3) provide you with materials, ideas, and stimulation so that you can help students improve their quality of life.

We are honored to have Dr. Alberta Hill, Dean of Home Economics, Washington State University as guest editor for our November/December issue. And, of course, we will continue to include teaching techniques, materials, games, etc. to aid you in the classroom.

We hope you will join us next year!

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